

AMERICAN CINEMATOGRAPHER

FOR AMATEUR AND PROFESSIONAL PHOTOGRAPHERS

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Cinematographers

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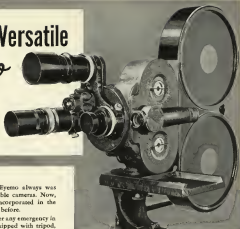
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Front Cover

MERRITT GERSTAD, A.S.C., and LORETTA YOUNG.
Loretta supplied beauty and acting and Merritt enhanced her contributions to Walter Wanger's "Eternally Yours" by his exceptional lighting and photography. A series of "choker" animated portraits used in a montage are said to be among the most beautiful closeups of the celebrated star ever made.

Wanger complimented Gerstad by giving him a new year's contract. Gerstad was also responsible for the excellent photographing of Ann Sheridan in Wanger's "Winter Carnival," which launched la Sheridan's career as a full-fledged star. One of the real veterans of motion pictures, Gerstad has been a first cameraman twenty-five years and was one of the first Hollywood cinematographers to work with color.

Photo by Frank Prouday



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Something to Remember

By George Blaisdell

THERE was a preview in Los Angeles August 23 which was unusual in several respects. The finely photographed picture was "The Star Maker," and those who appeared on the screen were not around Bing Crosby. There was Walter Dammrich, 77-year-old orchestra leader, venerable, impressive, human, lovable, efficient.

In all the years in which he has been in the public eye, and despite the many tempting offers which must have been made him, here was his first public screen appearance. And with his debut came also that of another, of one at the other end of the age scale. It was the screen debut of a singer, of Linda Ware, a 14-year-old wonder on whom the dean of orchestra leaders gallantly, almost reverently, bestowed words of high praise.

The setting was one to remember. Already behind the house was a night that was rare in the way of entertainment. There had been laughter, much, and there had been moments when the lump in the throat was at least perceptible. The boys and girls had put on their acts, had sung their songs and done their dances. The marvelous voice of Linda Ware had thrilled the house, with operatic music and popular music. The time had come when the show could be put to bed and everybody would be happy.

Instead in the course of the smooth running of the show it came to pass that Linda should sing accompanied by the Los Angeles Philharmonic Orchestra, with Walter Dammrich as conductor. The soloist came on the stage, attired in a long and simple gown. The orchestra was in its place, the leader by his stand. The leader greeted the child, greeted her with both hands.

The leader waved his baton, the musicians responded, and the child began to sing—in perfect ease and assurance. The voice rose and fell, with the marvelous notes flowing in a steady and unhesitant and effortless stream.

As the climax was approached, with the same lack of effort on the part of the young singer, while the house was relieving its tension by sustained applause, the veteran leader turned to the singer. Again he put out both hands. As he grasped the child's hands he leaned over and implanted a kiss on the brow of the singer.

It was a moment neither of the two participants nor any member of the applauding house would forget.

NOT the least of the finer sides of the cine club is that where the business meeting is merged into a home gathering, where continually as heard "Will you have another hamburger?" or "How about a little more

perch?" . . . and where the parliamentarian for once is silent.

Such a party was that in which members of the Los Angeles Cinema Club on the evening of August 1 gathered at the hillside home of Major F. J. Rutland. At the rear of the house and on the level of it was a good-sized swimming pool. At the base of the steep thirty-foot rise to the tennis court was an open fireplace, built for just such occasions. There was a great coal fire underneath, burned in by high sides. A great iron plate covered the coals.

When darkness had descended, when the lights from the city below were brilliantly present, when no longer was there any response to seductive suggestions as to food and drink, the group ascended to the tennis court. There the party looked on a Cinematographer prize winner of 1932, "I'd Be Delighted To," and on Kenney Moore's "Prize Winner" of 1937. Then Father Hubbard's "Majesty of Alaska" in infrared entertained the party, followed by Major Rutland's own color 16mm. picture in Kodachrome taken in England in 1937. It was an unusual blending of entertainment.

Then there came swimming on the main deck and basketball and related games "upside." It was an all-around evening and greatly enjoyed.

READERS of this issue will note the illustrations from the owners of Jack Kuhn's in the center of this book. It is possible they also may have been so fortunate as to have seen them on the screen sometime within the last month. Caught in the Magic Carpet at the Hollywood News Reel Theatre something like a month ago this writer was impressed by the remarkable beauty of the spectacular pictures shown.

He believed also these pictures would be admired by the readers of this magazine. With this belief in mind he got busy. Through the courtesy of Rodney Bush, exploitation manager of Twentieth Century-Fox Film Corporation in New York, we are enabled to show you what may be seen in these pages.

Those who saw them can tell of their photographic beauty. If altitude gives clarity then shooting from 25,000 feet he certainly had it. And he got it. Another thing it is quite certain our readers will agree with us on and that is the photograph of Jack Kuhn:

It is a photograph and more. Certainly it might be the creation of a sculptor who designed a heroic figure of a cameraman on adventure bent—and found it here.

PARAMOUNT showed the latter part of August "Range War," one of Harry Sherman's superior brand of Western product that permitted Russell Harlan, A.S.C., a chance more than casual to display his western country. There were mountains and snow, a lot of them, in the background, and riding country in the foreground. And the photography in them was good to look on.

As one of the many who continue year after year to love the western picture, to love it without thinking it necessary to apologize to anyone or anybody for lavishing that affection on it, it is good to find some one who is making "em better as time goes on, and who keeps on making them.

And the brand of men Producer Sherman puts into his cast speaks well for the quality of his product—even as acting quality exists in every picture—men from William Boyd down the list whose names often are found in casts other than westerns.

PARAMOUNT is releasing "This Man Is News," a picture that is British made all the way. The story is around a newspaper, with comedy and tragedy in abundance. The majority will be inclined to say that it couldn't happen, yet they will probably concede on being pushed that it all is not impossible.

Its finish brought applause from a semi-preview house, which in itself is something. Three persons in particular were so good there is room on any one's list for them—Barry K. Barnes as Simon Drake, a reporter; Valerie Hobson as his wife, Pat—and she, while not a newcomer, seemingly is young and certainly is vitally refreshing, and Alastair Sim as MacGregor, the city editor who with suddenness was catapulted from the depths of despair to the heights of triumph—and then again to the depths.

The alternation of melodramatic twists for the period of the play of four or five days keeps the audience tense—which is entertainment plus. "This Man Is News" is worth seeing.

STRANGE indeed is EKO-Bado's "Nurse Edith Cavell." It is a story practically without a laugh. Yet it is a story that is gripping though grim, one in which it builds steadily toward the inevitable, toward the inescapable.

Anna Neagle plays the part to the hilt—thinking only of the part, not of herself. She moves swiftly, yet unburdened. She is selfless, yet always displays a full realization of her fate.

There is a splendid cast around her. It will add to the acclaim that goes out to the player and the play.

(Continued on Page 410)

DENSITOMETRY AND ITS APPLICATION TO MOTION PICTURE LABORATORY PRACTICE

By EMERY HUSE and GORDON CHAMBERS

Motion Picture Film Department Eastman Kodak Company,
Hollywood, California

In Three Articles—Article I

ONE of the most important steps of sensitometric control in the processing of motion picture film in the modern laboratory is the measurement of the density values of the steps of the sensitometric strips used. These same methods are applied to sound negatives and prints as the measuring instruments are the same. While there exists a great deal of information in the literature regarding this general subject, the paper by Jones¹ being particularly comprehensive, the discussions are general in nature and they have not attempted to deal specifically with the daily problems associated with laboratory use of densitometers.

While the present discussion includes some theoretical aspects of the subject, as have seemed necessary for a clear understanding, it is the primary purpose of this paper to discuss the instruments used, their applications and limitations, and the precautions to be observed in order that the values obtained may be interpreted correctly.

A. Characteristics of the Material to Be Measured

It is well known that the developed photographic image is composed of minute silver particles and that light transmitted by such a deposit is scattered, a condition which is not true of such materials as dyed neutral gray filters which transmit a light beam without altering its size or direction but diminish its intensity only.

This scattering power of a photographic deposit is very important and must be taken into consideration in the design or use of any instrument for

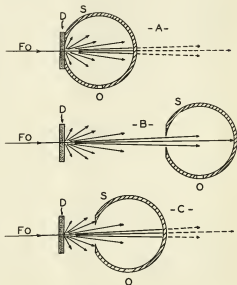


Figure 1

TABLE 1

% Trans	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
0	2.00	1.96	1.92	1.89	1.86	1.83	1.80	1.77	1.74	1.72
1	2.00	1.96	1.92	1.89	1.86	1.83	1.80	1.77	1.74	1.72
2	1.70	1.68	1.66	1.64	1.62	1.60	1.59	1.57	1.55	1.54
3	1.52	1.51	1.50	1.49	1.47	1.46	1.44	1.43	1.42	1.41
4	1.40	1.39	1.38	1.37	1.36	1.35	1.34	1.33	1.32	1.31
5	1.30	1.29	1.28	1.28	1.27	1.26	1.25	1.24	1.24	1.23
6	1.22	1.21	1.21	1.20	1.19	1.19	1.18	1.17	1.17	1.16
7	1.15	1.15	1.14	1.14	1.13	1.13	1.12	1.11	1.11	1.10
8	1.10	1.09	1.09	1.08	1.08	1.07	1.07	1.06	1.06	1.05
9	1.05	1.04	1.04	1.03	1.03	1.02	1.02	1.01	1.01	1.00
10	1.00	1.00	.99	.99	.98	.98	.97	.97	.97	.96
11	.96	.95	.95	.95	.94	.94	.93	.93	.93	.92
12	.92	.92	.91	.91	.91	.90	.90	.89	.89	.89
13	.89	.88	.88	.88	.87	.87	.87	.86	.86	.86
14	.85	.85	.85	.84	.84	.84	.84	.83	.83	.83
15	.82	.82	.82	.82	.81	.81	.81	.80	.80	.80
16	.80	.79	.79	.79	.78	.78	.78	.77	.77	.77
17	.77	.77	.76	.76	.76	.75	.75	.75	.75	.75
18	.74	.74	.74	.74	.73	.73	.73	.73	.73	.72
19	.72	.72	.72	.71	.71	.71	.71	.70	.70	.70
20	.70	.70	.69	.69	.69	.68	.68	.68	.68	.68
21	.68	.68	.67	.67	.67	.67	.66	.66	.66	.66
22	.66	.66	.65	.65	.65	.65	.64	.64	.64	.64
23	.64	.64	.63	.63	.63	.63	.62	.62	.62	.62
24	.62	.62	.62	.61	.61	.61	.61	.60	.60	.60
25	.60	.60	.60	.60	.59	.59	.59	.58	.58	.58
26	.58	.58	.58	.58	.58	.57	.57	.57	.57	.57
27	.57	.57	.57	.57	.56	.56	.56	.56	.56	.56
28	.56	.55	.55	.55	.55	.54	.54	.54	.54	.54
29	.54	.54	.53	.53	.53	.53	.53	.53	.53	.52
30	.52	.52	.52	.52	.52	.52	.51	.51	.51	.51
31	.51	.51	.51	.50	.50	.50	.50	.50	.50	.50
32	.49	.49	.49	.49	.49	.49	.49	.48	.48	.48
33	.48	.48	.48	.48	.47	.47	.47	.47	.47	.47
34	.47	.47	.47	.46	.46	.46	.46	.46	.46	.46
35	.46	.45	.45	.45	.45	.45	.45	.45	.45	.45
36	.44	.44	.44	.44	.44	.44	.44	.44	.43	.43
37	.43	.43	.43	.43	.43	.43	.43	.43	.43	.42
38	.42	.42	.42	.42	.42	.41	.41	.41	.41	.41
39	.41	.41	.41	.41	.40	.40	.40	.40	.40	.40
40	.40	.40	.40	.40	.39	.39	.39	.39	.39	.39
41	.39	.39	.39	.39	.38	.38	.38	.38	.38	.38
42	.38	.38	.38	.37	.37	.37	.37	.37	.37	.37
43	.37	.37	.37	.36	.36	.36	.36	.36	.36	.36
44	.36	.36	.35	.35	.35	.35	.35	.35	.35	.35
45	.35	.35	.34	.34	.34	.34	.34	.34	.34	.34
46	.34	.34	.33	.33	.33	.33	.33	.33	.33	.33
47	.33	.33	.33	.32	.32	.32	.32	.32	.32	.32
48	.32	.32	.32	.32	.32	.31	.31	.31	.31	.31
49	.31	.31	.31	.31	.31	.31	.30	.30	.30	.30
50	.30	.30	.30	.30	.30	.30	.29	.29	.29	.29
6	.1	.2	.3	.4	.5	.6	.7	.8	.9	

measuring its transmission. During recent years numerous workers have investigated the optical problems associated with the measurement of transmission of photographic deposits and a number of instruments are available commercially for this work.

However, it will be found that the values obtained by measurements on instruments of various types do not always agree.

B. Definitions of Common Units

The result of a measurement of the light absorption of a silver deposit may be expressed in one of three ways. It may be written as the transmission (T) and in this form is usually given in per cent. The transmission is the ratio of

the emergent light to the incident light. Since the transmission becomes less as the amount of silver becomes greater, the term opacity, (O), is sometimes used. Opacity is the reciprocal of the transmission, 1/T. In addition to these two terms, Hurter and Driffield introduced the word density which they defined as the common logarithm of the opacity or log 1/T. The following tabulation shows the relationship between a series of these values:

Transmission	% Transmission	Opacity	Density
1	100	1	0.0
.65	65	2	0.2
.01	10	10	1.0
.001	1	100	2.0
0.001	0.1	1000	3.0

The effect of superposing two or more silver deposits would be obtained by multiplying together their separate transmissions or their opacities or adding their individual densities, if the effect of interreflection between their surfaces is neglected. A more complete table showing the relationship between density and transmission is given in Table I.

In most cases in motion picture practice the unit density is used. The characteristic curve of a photographic material is usually represented graphically by the relationship between density and the logarithm of exposure. This curve when plotted is a visual expansion of the useful practical characteristic and is known as the "H & D" curve after Hurter and Driffield, who first used it.

Since this curve is so important in technical photographic work, it is obvious that the measurement of density is one of the fundamental bases of photographic investigation. Although international standards exist for almost all the other units used in photography, as the meter for distance, the candle for intensity, and the second for time, no such standard exists by which the apparently simple value density may be determined.

C. Optical Systems for Density Measurements

That this is so is due entirely to the profound effect upon an optical system exerted by a photographic deposit on-silvering, as it does, of discrete particles of silver. The size of these particles may vary from those having a diameter

Photographers Cruising Northward

(From the July Steam News, official organ of the Australian Amateur Club Society)

The big gathering of photographers, from Sydney and neighboring States, left in the R.M.S. Strathford for Port Moresby on Friday, 23rd ult., amid scenes of excitement and enthusiasm.

So far as numbers are concerned, the cruise, in which the A.A.C.S. has been closely interested, is a decided success.

We learn that the kindest man aboard is Mr. H. Mallard, who has assumed control of the party. The day after departure while the steamer was heading northward, Mr. Mallard got all photographers together and after introductions and a friendly talk on the possibilities of the trip, badges were handed around.

On these was inscribed "Port Moresby Photographic Cruise 1935"—blue badges for "staff" and red for else workers. This badge will enable those with common interests to work in together.

For occasions ashore at the port of call, charabans will display blue and red ribbons so that mutually interested parties may travel together.

It is more than probable that the A.A.C.S. will be interested in assisting to penetrate another cruise about this time next year.

of several millicenths to these less than one millicent of an inch.

Let us imagine a simple optical system for measuring transmission. From a light source, such as an incandescent lamp, light, or flux as it is termed by the physicist, is obtained. We also have a means of collecting this light such as a hollow ball or sphere having an opening on one side through which the flux may enter. Such a condition is illustrated in Figure 1.

The emergent light is represented by E , the hollow sphere by S and the density to be measured by D . If we place the emulsion surface against the opening in the sphere, as in Figure 1A, all the light coming through the emulsion, the emergent flux, will be collected by the sphere. The arrows in this figure indicate the direction of the scattered light and by their length the relative amount in each direction.

Let us now move the sphere away as shown in Figure 1B. The scattering of light by the density has not changed and as the sphere collects only that portion emerging on the axis.

Two completely different measurements of the transmission have now been made. That illustrated in Figure 1A, where all the transmitted light is collected by the sphere, results in a density value, when calculated from the transmission, which is called the *diffuse density*.

The measurement obtained by an optical system such as that in Figure 1B results in a lower value for the transmission because less of the emergent flux is collected. The density value derived from this measurement would be

TABLE 1—Continued

Trans	0	.1	.2	.3	.4	.5	.6	.7	.8	.9
51	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29
52	.28	.28	.28	.28	.28	.28	.28	.28	.28	.28
53	.28	.28	.27	.27	.27	.27	.27	.27	.27	.27
54	.27	.27	.27	.27	.27	.26	.26	.26	.26	.26
55	.26	.26	.26	.26	.26	.25	.25	.25	.25	.25
56	.25	.25	.25	.25	.25	.25	.25	.25	.25	.24
57	.24	.24	.24	.24	.24	.24	.24	.24	.24	.24
58	.24	.24	.24	.23	.23	.23	.23	.23	.23	.23
59	.23	.23	.23	.23	.23	.22	.22	.22	.22	.22
60	.22	.22	.22	.22	.22	.22	.22	.22	.22	.22
61	.21	.21	.21	.21	.21	.21	.21	.21	.21	.21
62	.21	.21	.21	.21	.20	.20	.20	.20	.20	.20
63	.20	.20	.20	.20	.20	.20	.20	.20	.20	.20
64	.19	.19	.19	.19	.19	.19	.19	.19	.19	.19
65	.19	.19	.19	.19	.18	.18	.18	.18	.18	.18
66	.19	.19	.19	.19	.18	.18	.18	.18	.18	.17
67	.17	.17	.17	.17	.17	.17	.17	.17	.17	.17
68	.17	.17	.17	.17	.16	.16	.16	.16	.16	.16
69	.16	.16	.16	.16	.16	.16	.16	.16	.16	.16
70	.15	.15	.15	.15	.15	.15	.15	.15	.15	.15
71	.15	.15	.15	.15	.15	.15	.14	.14	.14	.14
72	.14	.14	.14	.14	.14	.14	.14	.14	.14	.14
73	.14	.14	.14	.13	.13	.13	.13	.13	.13	.13
74	.13	.13	.13	.13	.13	.13	.13	.13	.13	.13
75	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12
76	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12
77	.11	.11	.11	.11	.11	.11	.11	.11	.11	.11
78	.11	.11	.11	.11	.11	.10	.10	.10	.10	.10
79	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10
80	.10	.10	.10	.10	.09	.09	.09	.09	.09	.09
81	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09
82	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09
83	.09	.09	.09	.09	.09	.09	.09	.09	.09	.09
84	.08	.08	.08	.08	.08	.08	.08	.08	.08	.08
85	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
86	.07	.07	.07	.07	.07	.07	.07	.07	.07	.07
87	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
88	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06
89	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
90	.05	.05	.05	.05	.05	.05	.05	.05	.05	.05
91	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
92	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
93	.04	.04	.04	.04	.04	.04	.04	.04	.04	.04
94	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
95	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03
96	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
97	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02
98	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
99	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9

Cuba Providing Money For Benefit of Local Pictures

There has recently been introduced into the lower branch of the Cuban Congress a bill providing for a tax upon motion picture distributors or producers of 33 per cent of gross box office receipts in Cuba of every film shown in the Cuban national territory, according to a report received in this Bureau from the office of the American Commercial Attache at Havana.

Proceeds of this tax would provide prizes to Cuban film producers, authors and composers, as well as an annual subsidy of \$18,000 for a Cuban theatrical company.

Designed to restrain the outflow from Cuba of film rentals claimed to aggregate millions of dollars, the bill limits the film rental payable to foreign producers or distributors to not more than 50 per cent of gross entrance receipts of the individual films.

Other sections of the bill would require that within fifteen days of enactment into law movie impressions must submit to the Secretary of Commerce a list of prices of admission which may be revised only once a year with a month's advance notice to the Secretary of Commerce.

called the *specular density*. Obviously the specular density is higher than the diffuse value.

In Figure 1C is represented an intermediate condition where part of the scattered light is collected together with all of that portion along the axis and such a measurement is said to be "quasi-specular." If we were to imagine that the sphere in these diagrams represented a photo-electric cell which was connected to a meter of some sort, we would get the largest deflection for condition A, a small one for condition B, and some intermediate value for C which would depend upon the distance from the given density to the opening or window of the cell.

Figure 1A represents the condition during contact printing from a nega-

tive, as all of the light passing through the negative emulsion acts upon the print material. Figure 1C represents what happens in enlarging where the lens collects only part of the total amount of light coming through the emulsion of the negative.

Because a very slight departure from the ideal condition expressed in Figure 1A, where all of the emergent flux is collected, will modify the results toward condition C and because extreme care must be taken to exclude all scattered light in condition B, it is easily seen that the design of an instrument or densitometer to perform either A or B, each an ideal condition, is very difficult.

In general it is in the failure to attain these ideal conditions that the reason for disagreement between various

types of denotations is found. A more detailed and complete discussion of diffuse and specular density together with results of measurements on various films over a range of values is given by Tuttle. In that paper is discussed the theoretical relationship between the two values and it is pointed out there that this is not strictly a linear one.

Usually it is the diffuse density value which it is desired to obtain. In special cases, such as in sound projection where a definite optical system is used, the density should be measured actually in place in the system employed. The density so determined should be indicated by a suitable term, such as that customarily employed in the sound field,

"projection density," in order to distinguish it from the diffuse density customarily used in the laboratory.

Where no such distinguishing label is given it is normally assumed that the diffuse density is meant. All of the commercial instruments for density measurement, which are known as denotometers, are intended to yield diffuse values.

References

- ¹ Jones, L.A.: Jour. S.M.P.E.; 17 and 18: 491, 1931.
- ² Hurter, F., and Driffield, V.C.: J. Soc. Chem. Ind., 3: 455, 1936.
- ³ Tuttle, Clifton: J.O.S.A. and R.S.I., 12: 559, 1926.

JOHN ALTON BRINGS IN ANOTHER ARGENTINE HIT

WELL, John Alton, A. S. C., has done it again, and still does in Argentina. What he has done is told in ten or a dozen newspapers, and they are unanimous on the quality of his work. The picture was "El Matadero," a free interpretation of which would yield something like "The Bad Man of Tucuman." Tucuman is a province remote from Buenos Aires.

Alton was assigned to rewrite the scenario prior to production. Into the script he put speed, a speed he knew was so necessary, a knowledge he had acquired while with W. S. Vandyk in shooting the Tim McCoy series of westerns. The result was a surprise to all—so much so that the picture was not alone a photographic success; it became an artistic success as well.

Gustavo Castiglione, director of "El Matadero," in the course of an interview remarked that he had had several coworkers in the making of the picture. "Especially must I mention for his intrinsic merits John Alton, who has aided me with his ample culture in writing the scenario and for his experienced contribution in the filming of the picture," he declared.

Says Best Yet

From the Standard, the local paper printed in English, we learn the picture is based on Felipe Bonae's opera. The hero is the gaucho, or cowhand, cruel and ruthless, but at the same time indolent and romantic. The Standard declares in its opening that the picture is a noteworthy contribution to Argentine film production and merits full marks as an outstanding achievement.

It adds that "technically 'El Matadero' is the best picture yet made in a local studio. One of the best features of 'El Matadero' is that most of the scenes

are exteriors. The photography is magnificent, and John Alton has really shot some wonderful scenes.

"Woods, hills looking down on verdant valleys, and some superb cloud effects against hilly ridges are some of the chief characteristics of 'El Matadero.'"

La Nacion, the most important paper in South America, devotes a matter of 24 inches to the story of the preview. While photography is seldom mentioned in its columns, in this instance the critic very frankly goes overboard.

"'El Matadero,'" it declares, "is a poem of native dramatic accent. It contains noble and beautiful motion picture material with rich exteriors not very frequently seen among us. Photographically it records beautifully photographed scenes with magnificently lighted closeups, carefully done double exposures, and exteriors of high-class beauty taken in the vicinity of Tucuman."

El Mundo, an important morning paper of international reputation, classifies the picture as a legitimate hit, and that "John Alton, besides having taken part in writing the scenario of the picture, gives us a photography of exceptional beauty, exteriors of an amplitude never captured by our industry, with his well lighted interiors as well."

It may be added that among the host of praiseworthy comments among all these foreign language newspapers in this statement of Guano: "Alton's photography and technical work places 'El Matadero' among the best of American films." The photograph of the director of photography lends added emphasis to the comment.

The Instituto Cinematografico has selected "El Matadero" to be sent to the Venetian motion picture exhibition as an authentic document on gaucho life

New Paths in Photography

New Paths in Photography. By Andrew F. Springer. American Photographic Publishing Company, 353 Newbury Street, Boston. 47 plates. Size 11 by 11 inches. \$2.75.

This is a book along lines that are different. It starts off with the statement that although "the camera does not lie," which statement seems to have the truth on its side, nevertheless the decision of what to take and how to take it lies with the person operating the apparatus, and the truth of the picture taken depends on the operator's conception of the subject photographed.

The author states that perhaps the most potent law in the elimination of the superfluous. "As seen as the creative quality of any branch of art, graphic or other, is properly understood, namely, creation of a new image of a familiar subject or creation of a new pattern out of familiar objects," he goes on, "a wide field is thrown open, into which photography enters as naturally as any other graphic art."

The author points out that in spite of the countless times it has been repeated the mistake is still made of mixing up photography and painting. They have nothing in common, he declares.

"The absence of color in photography has been a weak point only to the weak followers of this graphic art ever since its invention," says the author. "The degree of translation attained through the photographic process should be considered an element of strength."

The book is divided into chapters under the titles of Creative Elements in Photography and Technique of Graphic Improvement, which is divided into Direct Projection, Negative prints, Negative on Dispositive, Granulation and Solarization.

There are made studies, one, for instance, showing clearness in line and form, with a second showing a sketch of the same figure limited to a single line with entire suppression of detail, as the simplest means to give the strongest effect.

We have had Plate 1 and 5, as indicated, and then in Plate 15 "figure in darkness." It displays the mystical charm of black and white achieved by reversal to a negative. The technique is enlargement from a reticulated positive transparency. The following plate shows a negative on a positive, moved out of register, and projected together on a transparency plate, which is again enlarged on hard paper.

Photographs are taken of leaves and feathers, analysis is made of gothic architectural details, of the dematerializing effect here given by the reversal of lights and darks, of intermingling of light and shade, of positive and negative.

In fact, the enlargement of a positive transparency to make a negative image brings a multitude of strange results.

AGFALITE NEW PORTABLE HAS GREAT FLEXIBILITY

THE Agfalite, a new and ingenious piece of lighting equipment, has just been introduced by Agfa-Ancon Corporation to solve the lighting problems experienced by many photographers. A radically different type of lighting unit, the new Agfalite is a valuable piece of supplementary equipment for professional photographers and is also excellent for amateur use in both still and motion picture photography.

Its ease of manipulation, its effectiveness in providing light from high or low levels, and its compactness for transportation in its sturdy steel case, are outstanding qualities of the Agfalite that will appeal to every photographer.

An important construction feature of the new Agfalite is a pantograph mechanism which allows it to be set up and adjusted on a moment's notice. The pantograph is anchored to the base of the carrying case and provides an extensible support for the light sockets and reflectors so that the lights may be placed at any position up to 94 inches above floor level.

Because of a built-in counterbalance spring mechanism, it is not necessary to fasten or secure the pantograph at the desired height, for it remains at the selected position. Further vertical adjustments can, of course, be quickly made simply by moving the lights up or down to a new position.

The Agfalite is equipped with two sockets mounted independently on sliding bars at the top of the pantograph mechanism to permit horizontal adjustment of the spacing of the two lights.

may be varied from 11 to 36 inches. Distance between centers of the lamps

The Agfalite is designed to take No. 2 size floodlamps and is furnished with two adapters to permit the use of No. 1 lamps as well. Reflectors are of a special design to promote even distribution of light.

Other mechanical features of the Agfalite include caster supports that fit the base of the unit to make it easily moved across floors, approved underwriters card with separate outlet plugs, and a diffusion screen that can be attached when softer lighting is desired.

The unit is supplied in brown crackle finish with pantograph and caster frames in nickel finish. It is U.S.A. made and available through photographic dealers at the list price of \$33.

Use of Supermatic Shutter Extended to Special Six-16

Early in August the Kodak Special Six-16 will be available equipped with Kodak Anastigmat Special f/4.5 lens in the new, precision-built Kodak Supermatic Shutter, the Eastman Kodak Company announces from Rochester.

Introduced a few months ago, the Supermatic has until now been available only on the Kodak Special Six-25. This new shutter has, in addition to a post-travel self-timer, speeds of T, B, 1 second, $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{10}$, $\frac{1}{25}$, $\frac{1}{50}$, $\frac{1}{100}$, $\frac{1}{200}$, and $\frac{1}{400}$.

Constructed with the accuracy of a fine watch, the Supermatic maintains its indicated speeds accurately through a wide range of temperature conditions, by virtue of a new type of shutter fabric



Agfalite set up, with distance between lights varying from 11 to 36 inches and elevation at any point up to 94 inches.

recent developed in the Kodak Research Laboratories. Superbly finished, it harmonizes perfectly with the other fittings of the de luxe Specials.

Equipped with Kodak Anastigmat Special f/4.5 and Supermatic shutter, the Kodak Special Six-16 will retail at \$43 without case; \$46.75 with case.

Kodaguide for House Light

Of interest both to novices and users of still cameras is a new Kodak home lighting guide, for Super-KK Film. This device, a pocket card guide with movable dial, offers complete data for indoor shooting by ordinary room light, from 60 watts to 400.

It covers light-to-subject distances of 12 feet down to 2 feet; lens apertures $\frac{1}{8}$ to $\frac{1}{22}$; "still" exposures of $\frac{1}{50}$ second to 44 seconds, and both normal and half-speed for movie cameras. This Kodaguide will retail at 10 cents.

Agfalite all packed in case and ready to go.



*When the Critics
Commend and Praise
The PHOTOGRAPHY*

*You may be sure
the picture is shot
with*

EASTMAN
PLUS X
NEGATIVE

J. E. BRULATOUR, Inc.
—— DISTRIBUTORS ——

EASTMAN TAKES ON LAMP OF BARDWELL McALISTER

By GEORGE BLAISDELL

THE Eastman Kodak Company in its search for the best lamp obtainable for its fifty stores in the United States and Canada has paid Hollywood the compliment of crossing the country to secure it. Announcement is made in Rochester that it has closed arrangements with Bardwell & McAlister of Hollywood whereby it will distribute the Baby Keg-Lite and the Foco-Spot to its stores in the United States and Canada beginning immediately.

The Baby Keg-Lite weighs but twenty-five pounds and is easily handled. The stand reaches up to 8½ feet. It uses 100 or 750-watt globes, and the type is T-20 or T-24 with medium bi-post base. Much weight is given to the statement that it is unsuited for color photography.

The Foco-Spot is an optical accessory which fits in the diffuser clips of the baby Keg-Lite. Its purpose is to develop a concentrated beam with sharp edges, either round or rectangular. A revolving disk with several sizes of round apertures will, at a distance of 15 feet, provide brilliant circles of even light in

sizes from 3¼ feet to 7 feet in diameter. Rectangular shapes are obtained by four sliding masks; these rectangles may be rotated to suit the object. For concentrated high lights, special shadow and silhouette effects the Foco-Spot is said to be an ideal photographic tool.

Opens New Field

As an accessory to the Foco-Spot a background slide may be purchased at a slight additional cost. Original designs may be drawn or painted on the glass slide and projected on the background.

Portrait photographers and commercial photographers who are using the Foco-Spot insist it has opened a new field of portrait possibilities. The intensity of the light beam is the same regardless of the aperture used.

With the Baby Keg-Lite a slight pressure on a conveniently accessible control instantly spreads the beam to any desired angle from a 4 degree spot to a 35-degree flood. A calibrated scale, giving focusing arm position, enables the duplication of any desired lighting effect. With this unique device shadows, colors and light quality may be compared, studied and analyzed in a manner heretofore impossible. This is an exclusive feature, with patents pending.

The light output of Baby Keg-Lite is three times greater than the average photographic light of equal wattage with conventional optics. At any degree from spot to flood the field is clear and even.

The prices of the lamp and accessories are as follows: The Baby Keg-Lite complete with double riser collapsible stand, 95 feet of rubber covered cable and plug, without globe, \$55; Foco-Spot attachment, with rotating disk and adjustable masks, \$25; background slide,



Baby Keg-Lite, lamp stand and cord.

with five clear and one heat-proof glass slides, \$2.50; globe used in Baby Keg-Lite, 500-watt T-20 clear C-13 medium bi-post globe—either M. P. 3200° K. or C. P. 3200° K., \$4.25; 750-watt T-24 clear C-13 medium bi-post globe, either M. P. 3200° K. or C. P. 3200° K., \$5.50.

The firm of Bardwell & McAlister, Inc., was formed in 1922, seven years ago. Both the members of the firm were actively working at the time when they quit work to become partners.

Geoff Bardwell started with Universal in 1914. He helped William (Bill) Hensley build that institution along with others when Universal started to grow. For a time he was in what was the special effects department. In 1923 he



Left, Foco-Spot

Right, baby Keg-Lite and Foco-Spot attached.





Here is a reduction of a 16 by 20 portrait of Bette Davis as she appeared in Warner's "The Old Maid." The accompanying full-page schedule and diagram shows how Photographer Elmer Fryer accomplished these remarkable portraits. In one instance the photographer remarked that it would not have been unusual with his ordinary lighting facilities to have required two hours to get his subject where he wanted her—everything precise. In the present case but four minutes were required.

because assistant chief electrician of Universal, and remained with that concern until he received a tempting offer from Harold Lloyd.

Two Generators for Start

From there he went with General Service, with which company he remained as chief electrician until this spring, although it was in 1932 he formed a partnership with McAllister.

John G. McAllister also started as electrician in Universal in 1914. He was one of the first to build an electric generator that was mobile. In the late 20's he built a mobile generator he rented to studios. It may be added he became one of the leading authorities in the country on mobile generators. In 1932 he took Bardwell as partner and started in business. The only assets they had in a book way were the two generators.

In the seven years they have been in

business they have built up one of the largest rental equipment agencies on the west coast. Bardwell & McAllister, Inc., are recognized as leaders in independent equipment.

One of the principal reasons for the success of the new lamp has been its instant focusing device. Elmer Fryer remarked on one of the pictures he made with Bette Davis that to get such a picture as he secured of her he ordinarily would have been compelled to work at least two hours, what with getting the lights just so, a matter which would have been impossible, as she would not have been a party to it. Nor would she have permitted a stand-in to undergo such an experience.

As a matter of fact, he said, it required about four minutes to get the full lighting, and he was through.

One of the leading factors is that it has been proved not only for black and white. The lamp has been equally proved for color, and it is for this it will be featured by Eastman in every phase of commercialism.

One at least of the pictures of Miss Davis shown herewith will be displayed in all of the Eastman stores in the United States and Canada. Also there will be available these same diagrams for the benefit of any photographer who may be interested in learning how these remarkable results were secured.



WARNER BROS.
PICTURES, INC.
WEST QUART BUILDING
BURBANK, CALIFORNIA

July 24, 1935

Samuel J. Ballister, Inc.
1901 Santa Monica Blvd.,
Beverly Hills, California

Dear Sir:

In compliance with your request, I am pleased to give you the following lighting changes and details of the full length portrait of "Baby Face" as set against a window from the forthcoming Warner News production, "THE HOT SHEEP".

PLANS: Screen Right (R).

PAINTS: Screen Left (L).

SCENES: Plan 2 is a 30' long light set one foot high.

SCENES: (L-1)

SCENES: 1/8 of a second.

Light 1: Placed on floor, angled up to 45° angle of

Light 2: Placed back of background at a height of

Light 3: Placed on floor back of set at full floor,

Light 4: Placed on floor, placed at full floor,

Light 5: Placed 3 feet down subject, is angled with

Screen Right (R) and facing lower set at 45° angle, angle 1/8 of a second.

Samuel J. Ballister
July 24, 1935
Page 1



All lights used were SAFARI & SAFARI "Baby Face", having set one 1/8 of a second.

Very truly yours,

Samuel J. Ballister
SAFARI

WJH

VITAPHONE

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PICTURES, INC.
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PAINTS: Screen Left (L).

SCENES: Plan 2 is a 30' long light set one foot high.

SCENES: (L-1)

SCENES: 1/8 of a second.

Light 1: at height of 45° angle, placed at full floor, highlighting wall and side of the face.

Light 2: Placed back of background about two feet high, down and on R.

Light 3: Placed on floor, placed at full floor.

Light 4: Placed on floor, placed at full floor, angled with screen right and facing lower set at 45° angle, angle 1/8 of a second.

Samuel J. Ballister
July 24, 1935
Page 1



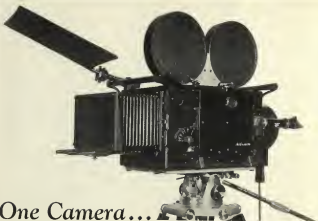
All lights used were SAFARI & SAFARI "Baby Face", having set one 1/8 of a second.

Very truly yours,

Samuel J. Ballister
SAFARI

WJH

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GO AFTER YOUR LOCAL FAIRS

By Ormal I. Sprungman

Photographs by the Writer



STUPENDOUS though they may be, entirely too much attention undoubtedly has been devoted to extolling current World Fairs. Judging from endless publicity releases from both fronts and special fair editions sponsored by many publications, one might be led to believe that the entire population of the country, as it were, must be migrating eastward or westward or both.

Truth of the matter is that only a small percentage of the total populace will see both fairs, only part of which group will carry still cameras and even fewer will take movies.

Of far greater interest to most small towners of limited means, including those everyday folk who neither have the time, money nor inclination to journey far, are the more modest fairs—the state fairs, the county fairs, the home town carnivals and special celebrations which regularly invade every little hamlet.

Here you will find neither Teylon nor Peraphers. Each small-town Treasure Island and each Flashing Meadow will have a distinctive personality all its own, and each will offer excellent photographic possibilities for wise-awake cameramen.

Naturally, there will be few awe-inspiring, super-modern structures in the small town layout, but there will be human interest and action and opportunities aplenty for odd camera angles and unique methods of film treatment.

All Have Something

Briefly, every fair, no matter how small, has its prize winning exhibits, its special displays, its midway side show or carnival ferris wheel.

Some sections of the country have special celebrations. In typical South Dakota, for instance, Bell Fourche has its Round-Up. Hot Springs promotes a Water Carnival. Deadwood boasts its Days of '76. Spearfish puts on an

Air Fair. Center claims its Gold Discovery Days, while Mitchell constructs its Corn Palace. Similar stunts are undertaken in other states.

At Belle Fourche, for example, downtown streets are barred from all traffic to provide convenient locations for merry-making concessions. Octopus arms and the ferris wheel spin crazily overhead, while Redskins and white folks swing into their hectic street dances, drowned out only by the yipping of following natives.

For three days and three nights, the town works itself up into the sort of frenzy which provides interesting photo fodder. In many other localities, historic pageants and colorful parades offer Kodachrome a wide berth.

Since people make any fair, you will probably concentrate much of your shooting on closeups of the personalities you find. Naturally, these should never be posed. Instead, carry your camera about unobtrusively and seek candid, surprise footage. For this type of filming, tripods will betray you, but this does not mean that all shooting must be done with the uncertain, hand-held camera.

Wherever possible, lean your outfit against the side of a building or atop a corner post or hold it firmly against a tree for sturdy support. If you plan any bird's-eye angle views looking down upon the fair grounds, prevent the danger of a lens split by securing your camera to your wrist with a leather leash.

When Tripod's Imperative

Telephoto lenses of medium length are also useful for obtaining intimate closeups of wide-eyed youngsters and tired, foot-weary oldsters. Where long-focus lenses are used, however, a tripod is most necessary to prevent jittery pictures. Candid group scenes can often be taken by "under-arm" methods.

Simply tuck the camera acromachially under your left arm, after having pre-set focus and aperture, walk into the

scene, fold your arms in front of you, and calmly operate the exposure button with the thumb or fore finger of the right hand.

If you wear a topcoat, insert the left hand in the left pocket, grasp the camera firmly through the coat lining, and do your shooting from hip level. These methods are equally effective when filming detective footage for courtroom evidence. No movie maker, however, should go beyond reasonable bounds to secure his candid stuff.

Since most fair filming requires much footwork, travel light. Don't overburden yourself with a lot of extra gadgets unless they are essential to filming. Carry your camera in your hand, save carrying case. If you use monochrome stock, leave your 8x yellow filter right on the lens, removing it only when it is not needed.

Carry enough film with you, and remember that the usual tendency is to overshoot. If you have spent some time planning your fair reel in advance, you will have a pretty good idea of how much footage will be needed altogether. Possibly 500 feet of 16mm. or equivalent in 8mm., will cover all angles.

Carry Enough Film

If you plan to dig beneath the fair highlights, you may require 996 feet or more. The best bet is to carry a little more film than you plan to shoot, for nothing is more disconcerting than to run out of fodder just when the chiding is best.

The method of carrying extra reels and other accessories may cause a little anxiety. The empty camera carrying case, for instance, might be loaded and strapped to the shoulder. Still better is a small pack which can be swung over shoulder or back.

Two months ago the writer used such a pack for conveniently heaving flash-bulbs as well as film on a two-hour hike down into Wind Cave in the southern



Black Hills. Such an arrangement leaves both hands free for camera manipulation.

There are several ways to introduce a fair reel, but the easiest method might be to fade in on a long shot of billboard artists pasting up the first notice of the fair. Or show a couple of blithered heads tacking up a colorful advertising card. Either of these shots might be taken from a parked car, with motor idling, and when the inscription is fully read, the car starts up slowly and the camera begins to move during the fade-out.

Then adjourn to your darkroom—unless your camera is equipped with a wind-back—and wind back the film for the duration of the fade, creating a dissolve by fading in on a moving shot showing a car approaching the fair grounds.

(Special note: Several popular make cameras can be rebuilt with "wind-backs" Bieschl-Emmerich Laboratories, Inc., 333 Loeb Arcade, Minneapolis, Minn., rebuilds 8 mm. films for \$24.95. East Motion Picture Engineering, 8644 Hardyke, Detroit, Michigan, equips 16mm. Cine-Kodak Model K with wind-back for \$25.)

Angle up for a near shot of the name of the fair, and then come in for closeups of tickets changing hands, feet moving and turnstiles spinning.

Ask for a Flight

If weather conditions permit, hire a barnstorming aviator to take you aloft on a few sweeps over the fair grounds for a unique introduction. Such a wide angle glimpse will show the entire layout; then you slowly glide back to earth and shoot the highlights from the ground.

Cover the commercial exhibits as briefly as possible, allowing more footage to prize displays entered by local groups. If photofoods are needed to light inside displays, do your filming in early morning before the crowds arrive. Step well inside the doorway of a building and frame shots of visitors entering

Left—A high vantage point is often helpful in covering wide areas. Here Belle Fourche, S. D., streets are filled with newcomers to arrive guests at 1929 Black Hills Round-Up.

Right—A telephoto lens could be used here to pick off individual members of the crowd below. Street dances and wild merry-making add zebra and color to fair and carnival filings.

and leaving. Poultry and livestock exhibits are usually housed in bright surroundings, where closeups can be taken with fast lenses without need for extra lighting.

Lunch-time, with its hot dogs and pink lemonade, will furnish endless possibilities for candid, unposed studies. Sit down under one of the concession tents and place your movie camera on the

Day or night, the ferris wheel usually is chief carnival attraction. It is most photographically pleasing after dark.



table beside you, pointed at some interesting character perhaps across the way.

Estimate the distance, adjust the lens setting, and innocently press down on the exposure button while you gulp and gaze. You will be surprised at the results.

The midway, with its amusement centers, will capture much of your fair footage, for here you will find action and thrills aplenty. Barkers, medicine men, bearded ladies, the boy with the revolving head, trained animals, Ripley's freaks—these are only a few oddities you can film for your back-home audiences.

And then there are the thrill rides—the Lindy Loop, the Octopus, madrig racing, and, of course, the ferris wheel.

Pick High Spot

After you have covered some of these concessions from the ground, pick a good thrill ride, and do your action shooting from some dizzy height or angle for extra hair-raising thrills.

Usually at sundown all concession lights switch on, and the combination of artificial illumination and natural outdoor light produces weird looking pictures.

Color silhouettes of barkers, the crowds, odd structures and statuary, taken from a low angle against the western sky, will result in beautiful effects.

If your local fair features auto or horse racing, reserve a spot for track movies in your special film. Arena tags are sometimes granted to bona fide photographers and worthy amateurs, and these will permit you to take ring-side closeups of the preliminary preparations, well out of range of the grandstand spectator.

When the starting gun pops, you should be up under the roof of the grandstand, shooting down on the whole track right over the heads of spectators. The sheltered stand will serve as a giant sunshade, and the artillery will be that of unique framing beneath the eaves.

A telephoto lens and a fairly high vantage point will enable you to follow

This scene was an unusual exhibit at a recent Minnesota State Fair. Such night shots make fair viewing an even more interesting pastime.

the best of hoofs or the roar of motors around the speedway. You may wish to drop down to track level and shoot fence-line closeups as the speeders race by. And if you are looking for spills, you should seek a location on one of the turns where most spills occur.

Quite often, one day of Fair Week will be set aside as Thrill Day, when antiquated locomotives or motorcars are sent roaring headlong at each other, only to crash and explode before the horrified eyes of grandstand ticket-holders.

Daredevil's plunge takes through flaming walls, while multiple parachute jumpers leap earthward from unseen heights, marking their course with trailing fair dust. At most every fair you will find at least one high-diving horse or board.

Fireworks Big Thing

The fireworks display before the grandstand at night will cap the events of the day. If you use Type A Kodachrome, most of your after-dark filming will be done at your camera's widest aperture, preferably around f/1.8.

For giant pyrotechnics, pull back for a distant view, but for individual sky rockets and burning bombs, you can follow the flickering tail of the rocket with your telephoto right up to the bursting point. If there are bystanders on the



ground, silhouette them between the camera lens and the brilliant fireworks display for an artistic effect.

When you sit down to edit all your footage, remember that the tempo of your film—the speed at which you want it to gallop along—will depend on scene length. General scenes, views of buildings, persons and exhibits, should not run too long. In fact, shots taken on the amusement grounds, where action is fast and farious, may even call for shorter clippings.

Title-writing can be kept at a minimum by filming near shots of fair and

building signs and other inscriptions right on location. Where the wording is too long for a normal title, expose two or three frames anyway.

When the film is processed, make a frame enlargement of the wording, or project the single frame on a screen for close study, and bed down this reference title to normal length for inclusion in the finished film.

Shooting a few movie frames or employing a microman for title study purposes is even more efficient and accurate and less time-consuming than ordinary notebook scribbling.

GEORGE BARNES AWARDED NOD IN REPORTER'S POLL

GEORGE BARNES, A.S.C., was awarded the Hollywood Reporter's poll of the critics' approval of photography on "Blinkety and Lilegstone." The second for the month of July was to Theodor Sparkuhl for "Sean Geary" and Tony Gaudio for "The Old Maid."

Four other awards were given to the same picture. They were for the best picture, for the best director, Henry King; for the best actor performance, Spencer Tracy, who had the leading part, that of Henry M. Stanley, and for the best screen-play, Philip Dunne and Julien Josephson. Sir Cedric Hardwicke, who sustained the part of Livingston, was beaten out for the best supporting actor performance by Brian Donlevy, who portrayed the brutal sergeant in "Sean Geary."

On the screen credits full mention is made of the men composing the safari who went into Africa leaving Hollywood in June, 1937—the story of which was

told in the American Cinematographer a year ago, that in September, 1938 there among others were named Otto Brower, the director, and Sidney Wagner, A.C.S., photographer. The safari comprised a couple of hundred natives as well as three score natives acting as personal servants.

It was one of the largest expeditions ever sent out to represent a motion picture. One of the local Hollywood papers said the safari cost \$400,000, about sixteen times as much as it cost Stanley on his original trip. Practically 100,000 feet of new stock was exposed in the trek from Nairobi to Ujiji on Lake Tanganyika, and return.

The nearly hundred thousand feet of film which was shipped from Nairobi to London by air, by ship to New York and thence by air to Los Angeles arrived in perfect condition as shown by the film on the screen. The photography was beautiful.

The raw stock or original film was all

in sealed tins within two and vacuum packed. Following exposure the film was desiccated, or dried, for twenty-four hours to free it from humidity or moisture. Then it was sealed and waxed and placed in double tin containers and carefully cased and again sealed for shipment. Every precaution was taken the sealing was so tight that no air could penetrate.

Lawrence of England Visits Ampro Factory in Chicago

R. G. Lawrence of Helston, England, representing Messrs. M. W. Dunscombe of Ampro Sales, has been a recent visitor at the Ampro factory in Chicago. It was Mr. Lawrence's first visit to the United States and was for the purpose of acquainting himself with the personnel and the business methods of the company.

"We are convinced that through the efforts and co-operation of our English distributor all Ampro products will become even more widely known throughout the United Kingdom," writes President Mennen of the Ampro company.

AROUND THE WORLD'S MOVIE STUDIOS

By A. J. PATEL



A. J. Patel, F.R.P.S., F.R.S.A.
Chairman Photographic Society of India

LIGHTS! shouts the cameraman photographing a big set. In Hollywood, this call may be answered by a blaze of illumination from fifty, seventy-five, a hundred or more modern, efficient lighting units. Once they are on, and the cameras rolling the cameraman's worries about the scenes are, fundamentally speaking, over.

In the studios of my native country, India, even on the biggest sets the same call would be answered by the glow of perhaps two dozen lamp—scarcely enough to rig even a small-sized set in Hollywood. And once they were lighted, the Indian cameraman could count his worries as only begun.

These are the two extremes of a world-circling journey in which I have had the privilege of intimate contact with the studios and film industries of three continents and five nations. And while they are separated by thousands of miles, and by an even wider difference in technical resources, I feel that these two extremes represent the most noteworthy factors in the world film industry today.

India Production Active

India and Hollywood are certainly the two most active film production centers in the world today. In India, over two hundred pictures are produced every year. All of them are feature pictures, some of them running 14,000 to 15,000 feet in release length. When it is considered that these productions must be made on small budgets, and with

inadequate equipment and production resources, the real magnitude of the Indian cinematographers' achievements may be appreciated.

As I have said, once the lights are on and the camera rolls, the Indian cinematographer's worries are just commencing. Insufficient lighting equipment is only one of the things that worry him. He knows, for instance, that his lighting equipment may be inadequate, both in numbers and in efficiency, to make the shot. In addition, he may have to work with a lens which, according to modern, Hollywood standards, is far too slow.

In general, he must make his pictures without many of the things which his fellow cinematographer in Hollywood would consider absolutely necessary to modern production. What equipment he has is too often of an annoying nature rather than pleasing.

In all of India there are about twenty-five stages, owned by almost as many companies. Most of these studios are quite active. While some companies have the good fortune to have several stages, of relatively modern construction, some of the others may have only one stage—and sometimes that is not even sound-proof, though no company in India produces silent pictures today.

Coming to equipment, the lights are very poor, and the photographic equipment by no means elaborate. The average studio has a total of not more than 80 lamps, and not all of these are photographic lamps, by any means.

The most popular camera is the Bell & Howell, though recently some studios have acquired DeSire "Super Parvo's." It will probably surprise Hollywood cinematographers to learn that there is not more than one dolly and one Indian-made camera-crane in the whole country. Between this and the inadequate lighting facilities it is no wonder that dolly-shots are seldom made.

Production System Lacking

Motion picture production in India is not as well systematized as it is in Hollywood. Most of the stories are written or selected by the director, and the scenario is not written in finished form.

There is no such thing as a research or technical department; India's producers have never found the importance of having any. Yet when an American or British producer makes pictures, apparently laid in India, which contain technical inaccuracies, we in India are prone to complain of what we term "insults" to our native customs and culture!

After having served as a research advisor during the making of Twentieth Century-Fox's "The Badly Cured," I can appreciate the pains that reputable Hollywood producers take to obtain realism and authenticity in their pictures.

Most of the inaccuracies I have ob-

served in major-studio films led in India have been traceable to the simple geographical fact that India and Hollywood are many thousands of miles apart, which makes it difficult even for Hollywood's major studios to obtain the aid of people intimately familiar with the thousand-and-one details of India's local customs and usages.

I am sure that if any Indian producer attempted to make a picture led in America, film audiences in America could spot as many anachronisms as we in India complain of in American-made "Indian" films!

Returning, however, to Indian production methods, we make as many of our scenes as possible outdoors, with only natural light. Up to date, no artificial lighting has been used on locations. In most instances our outdoor sets or real buildings are used just as they are, with no changes. Fortunately, India has good sunlight most of the year, so weather is no particular hazard.

Often Delayed

Production is in most cases repeatedly delayed because this thing or that is not ready at the proper time. Sometimes the whole company may be ready to go and then discover that the chief players are late or entirely absent!

Often, too, companies working on the unsound-proofed stages find it necessary to "shoot around" background noises, or even to work at night in the hope of having things quieter. It is to be wondered that the average picture takes about four months to produce!

The camera is operated by the first cameraman; there is no system of having separate camera operators. There are, however, one or two assistants who may or may not be classed as skilled help. They help at everything from loading the camera to arranging the lights.

Working at odd hours, with settings, costumes and the like which have all too often been left more or less to chance, with indifferent equipment and unskilled helpers, the Indian cameraman must exercise unusual patience and ingenuity to get his picture finally recorded on film.

Then he turns it over to the tender mercies of the laboratory and trembles lest at this last stage of the chain things should still result in disaster.

It may perhaps sound incredible to Hollywood-trained cinematographers that fully half the Indian motion picture studios still use the old rack-and-tank system of processing. Yet it is true.

This is by no means the worst. Though India is a tropical country, where high temperatures can be expected, processing temperatures is in all too many cases controlled by merely adding ice directly to the solution.

Always Fighting Dust

Perhaps it dilates the solutions, the laboratory folk will admit, but it is

cheaper and simpler! Again, there is seldom any provision for freeing the air of the laboratory from the ever-present dust—and this, too, forms a hazard in the struggle to get a really good picture to the screen.

In this connection, let me say that those conditions exist in spite of strenuous efforts made by the technical representatives of the raw-film companies to show the Indian technicians and their employers the advantages of using more modern methods, and in spite of the efforts of the more progressive technicians themselves.

It is a discouraging fact that in many of India's studios and laboratories there is very little understanding between the worker who struggles to get the best possible work and the proprietor who struggles just as hard to get the best return out of the least money spent. Of course this is to some extent a problem in most industries and in most countries the world over, but it is raised to its highest power in India.

It is very difficult to make a man understand technicalities if he doesn't know the difference between good and bad pictures—especially if he is in the picture business not from any interest in art or showmanship, but simply to make money in the quickest and easiest way.

The average Indian picture costs about \$25,000, and makes good profits. The market for these pictures is restricted almost exclusively to India and to a few other countries where there are large Indian populations.

As has frequently been pointed out, the language question is a very serious problem, as India has about twelve provincial languages and enough local dialects to make a total of some 300 languages and dialects spoken by India's population. These are so different that the people of one village may very likely be unable to understand the speech of a neighboring village!

At present, pictures are produced in eight different languages, and as there is only a limited market for films in

each tongue it is not likely that the industry can develop on a larger scale until (or unless) India has one language and pictures are all made and understood in that language.

Technicians Enthusiastic

Yet despite these handicaps, and the greater one that India's cinematographers and other technicians must be almost wholly self-taught, India has little lack of capable technicians. More important, they are brimming with enthusiasm for their work, earnestly striving to make it better and to improve their country's films.

In this I feel infinite credit as due to India's cinematographers, for even though they are working under the handicaps of inadequate equipment and insufficient resources, they keep their patience and their enthusiasm, and in many cases turn out pictures in no way inferior to those made in the studios of Europe and England, where equipment and resources are so vastly more ample.

German Studios Well Equipped

After leaving India, the first foreign studio I ever saw was the Ufa Studio at Neubabelsberg, in Germany. This is a remarkably fine, big plant, situated just a few miles out of Berlin. In its time it has probably produced more of the world's outstanding films than any studio outside of Hollywood.

The Ufa Studio is the greatest film producing concern in the whole of Europe. There are about 2000 people engaged there in normal work.

The studio itself covers an area of 116 acres, and all types of pictures are produced there, including not only screen plays, but also excellent instructional films, advertising films and weekly newscasts. There is a total of 22 stages in this plant, of which 13 are sound-proof.

In general layout this studio might well be taken for a Hollywood plant, it is so spacious and complete. There are over 250 dressing rooms, capable of accommodating about 2500 players at one time.

For outdoor sets, Ufa follows the

EASTMAN SUPER-X PAN THREE TIMES AS FAST

Three times as fast as regular Cine-Kodak Eight "Pan" film, and surprisingly fine-grained, a new Cine-Kodak Eight Super-X Panchromatic film is announced by the Eastman Kodak Company, Rochester.

This new 8mm. film makes indoor picture-taking by artificial light almost as easy as outdoor filming in sunlight. Actors spotlighted on theater stages, boxing bouts in flood-lighted rings . . . these are readily filmed with Super-X "Pan."

Shots indoors at night can now be made by the light of one Photoflood bulb instead of three. And outdoors, football fans owning 8mm. cameras will welcome the new film for this year's gridiron activities, particularly for fourth-quarter action in the dimmer light of late afternoon.

In addition to its speed and fine grain, Cine-Kodak Eight Super-X "Pan" yields astonishingly clear, brilliant screen pictures. It will retail at \$2.25 per roll, including processing.

KUHNE'S CAMERA RECORDS MARVELS FROM AIR

By JACK KUHNE

*Expeditionary Cameraman
Twentieth Century-Fox Short Subjects*

*All illustrations are enlargements from 35 mm. film
photographed for Magic Carpet's subject of
"Good Neighbors"*

MAKING the Lowell Thomas Magic Carpet of Movielets "Good Neighbors" was a satisfying experience. In the first place, it tied in with Secretary of State Cordell Hull's policy of open-handed friendliness toward our Latin American neighbors, which also happens to be the policy of the executives of Twentieth Century-Fox, led by President Sidney Kent and my direct superior, Producer Truman Talley, in charge of all our company's short subjects.

If it hadn't been for the fact that in the midst of producing "Good Neighbors" I was assigned by General Manager Edmund Roek of Twentieth Century-Fox Movielets News to cover the tragic earthquake at Chillan, Chile, I would count this visit to South America as the most delightful assignment ever given me and, in search of Magic Carpet of Movielets material, I've roamed considerably.

Only four months previous to my South American visit I was making pictures of Lapp life in the Arctic Circle north of Norway for a picture titled "The Viking Trail," released last season as one of the Magic Carpet series.

That South America contains some of the most fascinating places in the world I'm sure you'll agree if you see "Good Neighbors," to which I contributed negatives from Argentina, Chile and Peru.

**Flying 50,000 Miles
To Make One Short**

The other sequences from beautiful Rio de Janeiro and other north-eastern countries on this continent were made by the good-will expedition from our company headed by Anthony Muto, our

In 50,000 Mile Air Trip
to Make One Short Magic
Carpet Cameraman Flies
to Elevations Over 25,000
Feet Securing Pictures of
Prehistoric Mysteries.



Jack Kuhne

Washington (D.C.) supervisor, aided by Cameraman Fernando Delgado and Soundman Ben Box.

Although this is but a single reel picture it represents a lot of effort by both parties. I myself flew over 50,000 miles to make my scenes. The Muto party also covered considerable territory.

Here is a brief itinerary of my own travels:

In the first place I flew from Miami to Panama and thence to Lima, Peru. After working there for awhile for the "Good Neighbors" release, I got an urgent request to fly to Chillan, Chile, to cover the disastrous earthquake that leveled that once beautiful Chilean city.

It will suffice here to say I hope I'll never be called on to cover another such tragedy and witness a whole section of a population practically decimated overnight. The tragic sights I witnessed in that stricken city are indelibly engraved on my mind.

But, even more so than the tragedies I witnessed was the unconquerable courage of the Chileans in the face of disaster. To see these gentle and loving people take over the task of reconstruction, even before the last tremors of the quake had subsided, renews one's faith in the general integrity of the human race.

**Flying 500 Miles
With Living and Dead**

From this scene of desolation I flew, as a medical aid to dying victims, back to Lima. On the way two of these badly injured persons died. We flew 500 miles with the dead among the pitifully maimed—a most horrifying experience.

However, we managed to save fifteen.



and when I left Lima I visited the hospital and found them all on the road to recovery and anxious to get back to aid in the reconstruction work.

After finishing my work for "Good Neighbors" in Peru I made a tour of Chile, working out of Santiago, and from there crossed the Andes by plane to Buenos Aires.

The biggest thrill of my trip came in Lima after I'd developed some still pictures I made on one of my flights. I was showing them to a group of professors at the University of Lima when suddenly one of the party let out a wild whoop and said:

"My God, here they are!"

I did not know what it was all about, but I noticed he was looking at one of my stills.

Helping to Solve
Mystery of Universe

"Here's what?" said I casually.

"Man," my friend answered, "you've got pictures here of the mysterious cones for which we've been looking for years."

I examined my pictures and, sure enough, there in the ground were giant

Here are mysterious markings noted by Congressman Jack Kuhse at an altitude —lines that cannot be distinguished as the ground. They are believed to date from a pre-Inca people and possibly to be a calendar for reckoning time. Some of these cones in the Nazca valley in the Andes are twelve miles in length and entirely straight. The University of Peru is building an observatory overlooking the markings. Here will be stationed a body of astronomers who will endeavor to recapture the period of time when these markings may have been of current interest.

cones crisscrossing and pointing here, there and everywhere.

"So what?" said I, in my ignorant bliss.

"So what," said my friend, "would you like to be a party to solving a mystery of the universe?"

"If I can do it on one drink, yeah," said I, "what's the catch?"

It then came out that what I had accidentally photographed had been the object of all sorts of archaeological expeditions, the pre-Inca cones. A Danish adventurer and mine named Captain Aage Salto had reported seeing these

mysterious markings on a surveying flight, but had not thought them important enough to locate.

They were about to be put down by the searching scientists as figments of the imagination when my pictures put them back in the running.

To explain the real significance of this rediscovery one would have to be an expert archaeologist, astronomer and mathematician. However, here goes. It seems these cones, some of them twelve miles in length, with lines as straight as if some giant had drawn them using a ruler, were pre-historic calendars.

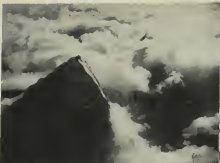
From these cones, it is supposed, an ancient pre-Inca race was able to tell the time of the year and forecast weather for planting. If this supposition is correct, then these ancient were as advanced in mathematics and astronomy as we are.

They used the cones to chart the stars and constellations, and when they were traveling along the lines of the cones or meeting their points it was significant in some at present unknown way.

To see these cones, it is further supposed, required a high knowledge of the heavens, of mathematics and the use of

(Continued on Page 110)

These photographs are culled from the remarkable film entitled "Good Neighbors," photographed by Jack Rakus and released by Twentieth Century-Fox as a Magna-Copy number. In Peru Rakus's plane flew 25,000 feet and more in order to photograph Mount Huascarán, 22,183 feet elevation. Then, for the first time it has been under a camera for motion pictures, he shot El Misti, great crater at Arequipa, Peru. There is a thrill that rides on the holder in this re-





quency as it realized the proximity of the wreckage to the ridge as the yakol drops below the crest. And of course a touch would mean disaster, of loss without trace.

The pictures easily will rank as among the most dramatic shown upon the screen. Stunningly they are tape. And exposure and photography generally? Of course there may have been superior, but this writer unfortunately remained at home that night.

Kuhne Records Marvels from Air

(Continued from Page 487)

Instruments like the present day street-car's transit and the sailor's sextant.

Plane and Camera Really Start Something

As a result of these pictures, the University of Peru is setting up an observatory on top of the Andes overlooking the Nasca valley, where these phenomena may be studied.

Then, when their exact position on the earth is determined, a whole body of astronomers are going to work out the exact places in the heavens of the constellations for thousands of years until they find them traveling the conical lines or matching the points.

If they are successful in this research they then expect to know the way and whereabouts of these mysterious so-called timepieces. One of the odd things about these cones is that they cannot be seen from the ground, though being plainly visible from the air.

So, maybe, Twentieth Century-Fox and I will go down in history as the ones who made a discovery that helped to solve a universal riddle. Yes, I got a great thrill out of this and I'm making archaeology my avocation for the future.

Five Mile Elevation To Photograph Huancuro

After getting over the excitement of being a discoverer I went back to my job and flew over Mount Huancuro, the highest peak in Peru, having to attain over 15,000 feet to encompass the giant in the folds of my camera. This peak towers into the sky for 22,180 feet.

My next conquest . . . by now I'm feeling like an old Spanish Conquistador . . . was El Misti, the giant crater at Arequipa, Peru.

This shattering bunch of violence hasn't blown in over a hundred years, but the last time it did it spread ruin and desolation with its hot lava over an area of 100 miles in circumference.

This is the first time this sleeping giant has ever been filmed for motion pictures, although it has been shown in stills. It was an awe-inspiring sight to look into that gaping, jagged, steaming hole. I wished I had Father Hubbard along with me to explain its mystery and potentialities.

From El Misti, after a few days' rest, we journeyed to the famous pre-Inca ruins at Macchu, Pícu, Peru. These were discovered in 1911 by ex-Senator Hiram Bingham. There are many mysteries attached to these remnants of a glorious past.

The pottery and tools found in the ruins show that these pre-Inca people were highly civilized and very capable engineers. One is bewildered by the size of the boulders used in the buildings and the masonry exhibited.

The skill shown here can only be compared to that displayed by the builders

of the Egyptian pyramids, and is said by many competent archaeologists to be even superior to the work in these monuments of antiquity.

So skillfully are these 100-ton boulders joined together that it is necessary to use a magnifying glass to discover the seam. Now that's something no contemporary mason can achieve.

Further, these ruins are along a mountain top ridge which is almost unscalable. In fact, although an earthquake is believed to be the cause, one group of ruins, which may be seen in the picture, are inaccessible, being perched precariously on a peak from which there is a sheer drop of over 3,000 feet.

But it's a mystery why any community, and it seems to have been heavily populated, would take such an airy habitation without having the use of wings. Yes, here is South America's puzzle, and it's just as mysterious, if not more so, than the Sphinx.

When we get all we could on this second South American mystery we flew down and photographed that beautiful part of the world known as the Chilean Lake section. Here is natural beauty that will match anything anywhere.

The Argentine was the last stop on the picture-making itinerary, and this

hunting, bustling, United States of South America gave us many excellent sequences for "Good Neighbors."

Then back to Lima, to Panama, to Miami and home. And, although I love South America, there is still no place like home.

County Supervisors Take Pictures of Drunk Drivers

The Pima County Board of Supervisors recently purchased a movie camera from the Martin Drug Company of Tucson, Ariz., for the purpose of "mugging" drunken driving suspects.

Shots are taken of the suspect being put through the various tests—walking a chalk line, bending over and attempting to touch the toes, closing the eyes and swinging the arms from an outstretched position at the sides in an arc so that the first fingers on each hand touch (try it), etc.

This movie is then shown the suspect in an effort to convince him that he might as well plead guilty—thus saving the county the expense of a jury trial. In case the suspect still wishes to fight the case, the movie is to be used as evidence.

Charles Nielsen, manager of Martin No. 1, and who has developed the photographic department in his store from a few cheap still cameras to one of the largest and most complete departments of its kind in the Southwest, convinced the Supervisors that the idea was practical by taking the first pictures personally and showing them to the Supervisors, law-enforcement officers, judges, lawyers and members of the press.

Now he is working hard on the city police force in an attempt to sell them candid cameras for all their patrol cars.

Something to Remember

(Continued from Page 519)

Some one has classed the performance as a documentary. And so indeed it is, one of the great documentaries of all time.

It will be a sorry picture for Germany. It will serve as a damning indictment against the German Army in the first instance, because it is more than plainly pointed out that the verdict was the act of the army. The German people had no part of it.

But the great public which sees the picture will not distinguish the army from the people. They will put the blame squarely on the head of the German man and woman who constitute the great German people. They will hate the German people for the unspeakable brutality that is put before their eyes.

And the German people, as a people? They will not see this indictment of them—for nowhere where flies the German flag will any part of "Nurse Edith Cavell" be shown. That, too, will be verboten.

Macchu Picchu

AS Lowell Thomas said in his absorbing description of the scenes shown on the opposite page in Twentieth Century-Fox's "Macchu Picchu": "This was a great city in remote days gone by, before the white man came, before the Incas came . . . The famous ruins left by the pre-Inca people at Macchu Picchu . . . Now a scene of rugged desolation, but those remains of buildings show that this mount once have been a fair and flourishing land—with beautiful agriculture and terrace cultivation."

"Nobody knows anything about the long-forgotten people who reared massive cities with extraordinary architecture. They built with immense masses of stone, and the wonder is—how could they have cut and handled the huge blocks? Joined without mortar and laid together with the most minute accuracy. A mystery of prehistoric civilization."

"On top of that rocky pinnacle are the ruins of a town. Inaccessible ruins—you can't get to them. It is believed that an earthquake broke down the approaches and left the town perched there, impossible to reach."

"Strange mystery of the past. Our South American Good Neighbors are indeed fascinating neighbors."



Praise Does Come for Camerawork

THE box office strength of a star or featured player is to a considerable extent gauged by the volume of fan mail he or she receives. A rare few directors—men like Cecil De Mille or Frank Capra—and fewer producers—such as David Selznick or Darryl F. Zanuck—enjoy professional practice as “box office” favorites not only because they make pictures that are successful, but because the public at large is sufficiently impressed with their work to write them letters about it.

Here, traditionally, fan mail comes. Many people, even within the industry, cherish a mistaken belief that to the general public such technical workers as cinematographers are more unknown, unnamed names on over long credit titles; that their work is so much a matter of purely technical routine that they never become personally known to filmgoers.

Cinematographers' Fan Following

A single glance at the mail received by any major studio's camera department should dispel this misconception once and for all.

During the months immediately following the release of any production unusually well photographed, or made under unusual circumstances, the mail box of the director of photography responsible for that achievement is crowded with letters from people in every walk of life—from people in and out of the industry who feel that his camerawork enhanced the dramatic value of the film, and from amateur and professional photographers and cinematographers the world over who are in his treatment of some scene a possible answer to their own photographic problems.

When Clyde De Vries, A.S.C., returned some months ago from an assignment in Dutch Guiana he surprised his studio associates with the statement that it was not so much his association with one of the world's greatest studios that opened official doors for him, as the fact that he was remembered as the man who photographed such locally popular films as “White Shadows in the South Seas” and “Trader Horn.”

Cecil De Mille, returning from a nationwide lecture tour, reported that to his amazement the majority of questions asked him by his audiences were not about the personalities and private lives of the stars, but specific and, to

use his own phrase, “incredibly technical” questions as to how this scene or that was photographed.

Wanted: Technical Advice

This quest for specific technical information naturally centers in the cinematographer's mail. For instance, soon after the first showing of a production had against a naval background, this magazine received a letter from a navy chief photographer who, knowing he was soon to be assigned to official cinematographic duties, requested specific information as to how Arthur Edeson, A.S.C., had lit and filtered his seagoing shots and how he had worked aboard a battleship.

As this particular seaman was reporting for duty in San Pedro a studio visit was arranged to permit him to get the necessary information directly from cinematographer Edeson. During the visit this sailor—a veteran of nearly two decades' service in every part of the world, confessed a greater thrill at seeing and meeting the members of the Warner Brothers' camera staff than he felt at the presence of some of the industry's most glamorous stars.

In literal fact, half a dozen of the screen's reigning beauties passed by him unnoticed as he remarked in awe, “Gosh, is that really Sad Hickox over there?”

When Dan B. Clark, A.S.C., photographed a film starting the Dionne quintuplets, his mail for months afterward is filled with letters from users of 16mm. and 8mm. cameras, asking how they can get comparably natural shots of their own children, or how to light baby pictures without endangering the infantile eyes.

As Shirley Temple's perennial cinematographer, Arthur Miller, A.S.C., is kept busy answering similar letters, which he does aided by his personal experience in making 8mm. home movies.

Ask About Filtering

After a film like “Stagecoach” scores of amateurs turn to the cinematographer in question—in this case Bert Glenn, A.S.C.—for information on filtering.

And let any unusual achievement in special-effects camerawork reach the theatres and men like Fred Jackson, A.S.C., Fayost Edouard, A.S.C., or Byron Haskin, A.S.C., find their mail full of letters asking if similar effects can be produced with amateur cameras.

In the same way, Elmer Dyer, A.S.C., and Charles Marshall, A.S.C., are pelted with questions about aerial cinematography by every one from first trip airline passengers up to experienced army pilots.

With the rise of Kodachrome such Technicolor veterans as Ray Rennahan, A.S.C., and Howard Green, A.S.C., have been constantly called upon for information helpful in sub-standard color filtering.

And after the release of the Technicolor “Garden of Allah” and more recently “The Wizard of Oz,” Hal Rosson, A.S.C., has for the same reason been doubly thankful that his hobby is 16mm. movie making—in Kodachrome.

A Cinematographer's Fan Mail

For more specific information on the subject of a cinematographer's fan mail let's take a glance at a quick cross section of the mail received by a typical cameraman.

One of the most notable current photographic achievements is Warner Brothers' “Juarez,” photographed by Tony Gaudin, A.S.C.

Through his courtesy we are privileged to quote from a few of the many letters he received from persons in and out of the industry during the first few weeks following the release of that production.

It is sometimes thought that a producer considers cinematographers somewhat in the light of a necessary evil—part of the studio overhead and helpful in the creation of glamorous girls, but scarcely creative artists.

On the day following the preview of “Juarez,” however, Gaudin received the following letter from a leading producer in no way connected with his studio nor concerned in the success of the production. It reads:

Dear Mr. Gaudin:

Please accept my congratulations on your brilliant job of photography on “Juarez,” which I think is artistically and dramatically one of the best the screen has ever seen. Cordially and sincerely yours,

DAVID O. SELZNICK

Such a spontaneous tribute from a competing studio's chief is certainly significant of the way the real leaders of the industry regard the members of the camera profession.

From far-off Australia came a letter from an Australian distributor who during a studio visit had made Gaudin's acquaintance. He says in part:

We have just had the extreme pleasure of previewing “Juarez.” I want particularly to congratulate you on the photographic effects you have obtained. Obviously, of course, I have no technical knowledge with respect to the art of photography; therefore, from the point of view of one who viewed the pictures from an unbiased aspect, I do want to

(Continued on Page 424)

NEW FAVORITES

EASTMAN'S three great new films back up their special characteristics with typical Eastman reliability and uniformity. Worthy successors to earlier Eastman emulsions, they are the new raw-film favorites of the motion picture industry. Eastman Kodak Company, Rochester, N. Y. (J. E. Brulatour, Inc., Distributors, Fort Lee, Chicago, Hollywood.)

EASTMAN

PLUS-X

for general studio use

SUPER-XX

for all difficult shots

BACKGROUND-X

for backgrounds and general exterior work

Documentaries for the Amateur

By JAMES A. SHERLOCK
Sydney, Australia



AFTER making a few personal pictures most amateurs feel the urge to make a documentary film. This high sounding title is attractive, but actually a documentary is a non-fictional film that tells a story. These films deal with reality, not fiction. It follows that there are many types of documentaries.

Family, holiday, industrial, agricultural or historical subjects are most favored by amateurs who wish to make a documentary, the approach to which is as varied as the creative and artistic natures of different individuals.

In a previous article suggestions for a family or holiday film were discussed. The following will deal with industrial, agricultural and historical films.

In these types of documentaries it is essential that "the whole truth and nothing but the truth" be shown, otherwise the film will fail in its objective. Use the lens of the camera as a searching eye of an inquisitive stranger wanting to learn all detail.

The amateur is fortunate in that he is director, cameraman and film editor all in one. He can arrange for unusual and effective lighting that will make the most commonplace objects include things that are not cinematic; he can write a story that will be interesting to the layman.

Industrial and Agricultural

These stories can be commenced in either of two ways. The first includes a visitor who wishes to make a tour of inspection. If it is a serious film contemplated and you are not familiar with all details, make a tour with a note book before you write the continuity.

You will then be able to write a continuous story and note the spots where closeups of your visitor can be cut into

the film. These will add intimate touches of humanity that will help the audience unconsciously gauge the relative size of the setting and the objects contained therein.

While this method of dealing with an industrial or agricultural film is best, the producer is wholly dependent on the capabilities of this visitor to walk through the film without becoming camera conscious.

The second method is to write a story without the inclusion of a visitor, but story it must be, right from beginning to end, with plenty of atmospheric back-

Types rather than actors should be chosen

ground and many closeups to show detail and texture. If it is a clinical picture, show if possible, cause, effect, treatment and cure.

In some types of documentaries such as mining or agricultural films the camera could follow a workman throughout his working day. Industrial films are not hard to make if you have plenty of lighting equipment, a fast lens and fast films.

Historical Documentaries

Research is necessary before a scenario can be attempted. If the making of the film coincides with celebrations that are being held to commemorate the founding of an institution, town, city or nation the filmmaker will find many willing hands to assist, but he would be well advised to do a little research himself.

A visit or two to the local library will enable him to select a few episodes which can be handled in a cinematic manner and later joined together by titles or other film technique then added to shots that are to be had when any suitable pageant is being enacted as a celebration of a past event.

With this type of film it is important that a historically correct story be written. From this a detailed working script is made. Divide this into parts which can be filmed in one day.

Types rather than actresses and actors should be chosen. People who resemble the characters they are to portray are effective. If it is a statesman that is required, choose a person who has dignity; a doctor or lawyer usually is suitable. If it is a farmer that has to be cast, choose a man that is used to han-

Costumes should be authentic—see of the characters in "Nature's Builders."



Industrial films are not hard to make if you have plenty of lighting equipment.

ding farm implements, but do not expect your doctor friend to become a farmer overnight, or your farmland to have the dignity of a statesman.

Costumes should be authentic. If you live in a city, that city most probably has a theatrical or fancy costume company that will hire period clothes. A wardrobe mistress can be of great value. Try to gain her interest and friendship.

You will be surprised at the costumes she can find among the racks. Clothes that are a little the worse for wear are better than new ones unless it is a person of high rank who is being dressed. If it is required to make a costume appear worn, do not fret. Rub it between two bricks.

Locations should not be chosen at random. Pay a visit to your local tourist bureau. These people not only advise about a holiday, but also know their own locality exceptionally well and will give assistance if they think your film might publicize the district.

If these people fail, try the newspaper cameraman and the newsreel cameraman, as both groups are keen men and know your difficulties. When a choice of locations is available choose the one nearest home as valuable time can be wasted traveling.

Directing is simplified if your players know what is expected of them before they are on the set. This can be done by supplying them with a detailed plan of the whole day's contemplated work.

Have several copies of your shooting



script typed and hand them to the players a few days before you are to go on location. This will save valuable time when you are ready to shoot.

For yourself prepare another working script that is set out in the order you intend working. On your first script your scenes will be numbered in numerical order, but in this working script you might find it expedient to rearrange the last scene first. Be careful to have a friend mark each scene so it is shot,

then, you will not miss any part of your sequences. This is one person's work, and he must be careful that the players appear in each scene as they did in the preceding scene.

Do not tire your amateur players with too many unnecessary rehearsals. Have your people know what is expected of them before they leave home and you yourself learn your script, shot for shot, and endeavor to get your cast into the mood necessary for each scene.

trade of Southern California will be given a first-hand view of what the Emby company plans to do in its new home.

"Photopedia" Issued

The United Catalog Publishers Inc., 226 Fifth avenue, New York, has just issued "Photopedia," the only official buying guide and reference book of the photographic industry. It is a large volume bound in a hard red velveteen cover containing over 400 pages with ample illustrations, descriptions, prices and technical data, complete classified merchandise index, alphabetical index of all manufacturers and extensive listing of trade marks and trade names.

The "Photopedia" is used as a buying guide and reference book by the photo-conscious as well as manufacturers, distributors, dealers, camera clubs, photographers, press photographers, schools, colleges, industrial organizations, etc. The price is \$1.95.

So that photographers may have an opportunity to submit pictures of summer activities to the Looze exhibit, the closing date for the receipt of prints has been deferred until October 1.

EMBY OPENING PLANT FOR MANUFACTURING IN WEST

THE Emby Photographic Products of California, Inc., is opening a new manufacturing plant in Los Angeles. The location is 1041 South Olive street, in a spot rapidly becoming the camera headquarters for the downtown section. The Craig company is on one side and the Los Angeles Camera Exchange is on the other.

At the head of the company is H. R. Kossman, general manager, who has had abundant experience in the work he is undertaking.

The building is 55 by 160, and part of it is in two stories. The upper floor is devoted to offices. In the front of the main floor is a large sales office. The remainder of the front of the office is devoted to an exhibit room and windows. Just behind these is a large projection room, with an area of 10 by 25 feet.

In the rear of this is a semi-darkroom of the same size, with a customers' darkroom leading off. There is another dark-

room devoted to testing immediately adjoining. There also is a stockroom with plenty of light. A big vault here is devoted to patterns and tools.

Chief Engineer R. C. Hubbard, formerly of the Consolidated Film Industries, will be at the head of a large force of engineers and designers. The latter have roomy quarters. The machine shop with 2500 feet of area has an impressive array of equipment, with lathes of many types. Chief Engineer Hubbard's office is at the edge of this room.

There is the latest type of temperature control for hardening metal, power press and foot press, automatic lathes and automatic screw. It is the intention to manufacture photo finishing equipment at first, to be followed by any type of amateur equipment or motion picture or any work which may be desired.

Mr. Kossman plans to have an opening about September 15, at which the

NEW!

*Three Times as Fast as
Regular "Pan"*



**CINÉ-KODAK EIGHT
SUPER-X**

**It's new, it's fast, it's brilliant. Super-X Film
opens whole new worlds of movie-making
opportunity for 8 mm. camera users.**

CINÉ-KODAK Super-X Safety Film (8 mm.) greatly increases the scope of movie making with an "Eight." Indoors under the light of a Photoflood or two, outdoors under any kind of daylight or with night's illuminations, Super-X does its work brilliantly.

In speed it is three times as fast as regular 8 mm. "Pan"; its even greater fineness of grain assures clear, clean-cut projection on the largest screens ordinarily used for 8 mm. showings. It is, of course, fully panchromatic. And its

price, with processing included, is \$2.25.

**Ciné-Kodak Eight "Pan"
Reduced in Price**

With the announcement of Super-X Film, the price of regular Ciné-Kodak Eight Panchromatic Film has been reduced from \$2.25 to \$2 per roll. This famous film—the film that brought revolutionary economy to movie making—remains exactly as it has always been, reliable, beautifully fine in grain, and wide in exposure latitude.

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

KODAK PRECISION ENLARGER UNIQUELY DESIGNED



FIRST seen in a comprehensive program of highly advanced photographic equipment, heralded as the most and most versatile enlarger available anywhere, uniquely designed for an extremely wide range of applications, Kodak Precision Enlarger is announced by the Eastman Company as ready in September.

Planned and built in the Kodak Rochester factories, the Kodak Precision Enlarger is intended for photographers who require and appreciate fine equipment. With it are announced two series of anastigmat enlarging lenses and a number of accessories useful both in routine and specialized applications.

With these lenses and accessories the Kodak precision enlarger may be used for producing black-and-white prints, contact slides, film positives, and also for making accurate color-separation negatives from full-color film transparencies.

Furthermore, it may be used for copying and tiling, for indoor or outdoor photography in full-color or black-and-white and for photomicrography in conjunction with any suitable microscope.

Through a carefully-planned system of interchangeable lenses and condensers the Kodak precision enlarger conveniently covers a range of negative

sizes from 55mm. up to 2 1/4 by 3 1/4 inches, permitting the making of 11 by 14-inch and larger prints on the base-board from any negative within this size range.

With the enlarger head turned to horizontal position range of enlargement is limited only by the length of the projection room.

Three units constitute the basic enlarger. These are as follows.

1. The stand assembly. A five-p/v, natural finish, laminated wooden base, 28-inch chrome-plated column 1 1/2 inches in diameter, and sliding bracket.

2. The bellows assembly A. A die cast aluminum back frame which attaches to the sliding bracket of the stand assembly, and carries a gray bellows, die cast aluminum front board which accepts a 3 1/2-inch square aluminum lens board and a nickel-silver chrome-plated shaft on which the front coating slides by means of a positive friction drive mechanism, designed for hairline focusing.

3. The condenser Head A. A light-tight metal lamp house containing an opal projection lamp and condenser system, consisting of two optically ground and polished condenser lenses in a metal mount with a heat-absorbing glass located at the top.

All Controls Positive

All controls, in this basic set up, are smooth-acting and positive. A newly adjusted counter-balance in the column head permits the operator to shift the enlarger head upward or downward with maximum ease. A slight turn of the tension hand knob secures the head at any desired height.

The head itself may be swung and locked instantly at any position from vertical to horizontal, and an indicator scale shows the accurate vertical position, as well as other positions up to 50 degrees off vertical. Furthermore, the head and bracket may be turned 180 degrees round the column, for projection to the floor.

These various controls have eminently practical application. Head tilt is useful in correcting converging vertical lines in a negative. Horizontal position is desirable in the making of extreme enlargements or photo murals by projection to the wall. And projection to the floor is convenient for producing an occasional greater-than-normal enlargement.

In order to provide full enlarging efficiency throughout the entire range of negative sizes accepted by the Kodak precision enlarger, lenses are available

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Eclair Camera Makes Hollywood Bow

By WILLIAM STULL, A.S.C.

WITH claims of being the most silent studio-type motion picture camera yet constructed, the French-built "Cameréclair" has made its initial appearance in Hollywood. Its manufacturer is the Etablissements Cinématographiques Eclair, of Paris, a firm which since 1907 has not only manufactured some of Europe's finest camera and laboratory equipment, but has also operated its own studios and laboratories.

While the new Eclair embodies numerous features familiar in previous models—notably the Mery focusing system—it is a completely new design, developed only during the past two years by Maurice Daltiel, who two years ago became chief engineer of the Eclair firm following an association of more than thirty years with the DeBrie organization.

Internationalized Design

The new camera is already in successful use in the major studios of Europe, Great Britain and India, and has thus been thoroughly proved on actual production before making its American debut.

The camera combines the outstanding

features of both European and American design. The camera head is of the boxform outline characteristic of European studio cameras, but is fitted with very American-looking external magazines, which eliminate any necessity of having the film specially rewound, or of complicated threading as has usually been the case with cameras fitted with internal magazines.

The actual framework of the camera is of rigid metal construction, but the designer has pioneered the use of a new and modern material for the outer case. This is a special synthetic plastic, moulded into shape. The material used, unlike some of the more familiar plastics which have been found ill adapted

to camera construction, is not brittle, but of a tough, semi-resilient character.

This outer case is lined with several layers of sound-absorbent materials which effectively absorb the noise and vibrations produced by the operation of the film-moving mechanism within, and incidentally serve as thermal insulation to protect the film from the effects of external heat. The front of the camera is closed, for better sound insulation, and the lens photographs through an optical glass window.

Pilot Pin Movement

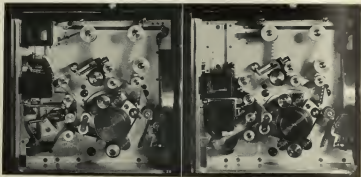
The film movement is of the pilot pin type, with an intermittent pressure pad. A single claw moves the film down between exposures; as the claw retracts, a single pilot pin enters the perforation and holds the film in accurate registration.

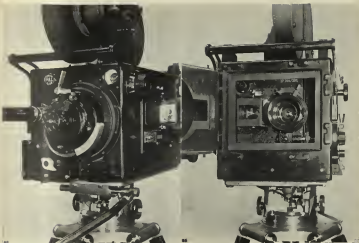
The pressure pad behind the aperture also operates intermittently, moving forward to hold the film precisely in the focal plane during the exposure, and releasing during the pull-down interval so that the film moves freely. One edge of the film is guided.

Designer Daltiel's choice of the single claw take-down movement is under-

Left, Mechanism of new Eclair camera, in photographing position. Film, with prism for focusing on film, in aperture, ground glass above. Note single claw pull-down and registration pin movement.

Right, Eclair mechanism set for ground glass focusing. The film carrying aperture is folded downward, and the ground glass dropped into the focal plane.





Left, Rear view of Eclair camera, with motor housing removed. Note bypassed lock on motor switch, with motor switch and converters below. Focus knob and two of the three focusing scales can be seen at right corner; below, on side, finder and footage counter.

Right, Front view of Eclair camera, with front window open. Note standardized lens mount and position of finder lens close to camera lens. Diaphragm and shutter controls visible at side of camera, slightly below lens. Note rubber translation on diaphragm control shaft.

For focusing on film—so long a favorite method of European cinematographers, even since the advent of anti-halation film backings—a prism directly behind the pressure-pad reflects the image on the film into the focusing microscope, which is mounted on the camera door and in turn reflects the image to the rear of the camera.

The focusing eyepiece, which may be adjusted to suit the individual eye, is fitted with an automatic shutter so that the image may be followed on the film during shooting, while if this is not done the focusing telescope is automatically shuttered, so no light will enter to fog the film.

For ground glass focusing, a knob at the rear of the camera is pulled, and the camera revolved by hand. This

rotates the film carrying aperture downward away from the focal position, and at the same time slides a ground glass down into place in the focal plane, where it is viewed from the rear of the camera through the same reflecting-magnifying optical system used for film focusing.

In this operation, the camera door is not opened, and the film is not subjected to any undue bending or twisting stresses, and cannot be damaged.

A slight turn of the motor shaft returns the film to its normal position and moves the ground glass up and out of the way. A safety lock makes it impossible to start the camera with the ground glass in the focusing position.

One Focus and Diaphragm Scale

Lenses are quickly interchangeable, and fitted in standardized mounts. These mounts are a recent invention of Englebert Delolot, and embody automatic compensation for differences in focal length and for the different stop calibrations of individual lenses.

Therefore a single scale for diaphragm settings and another for focal settings will serve all lenses, regardless of focal length or speed. In focusing, the lenses do not rotate, but move straight forward or back with relation to the film.

For convenience of operation, three focusing scales are provided. One is visible through a port at the front end of the right-hand side of the camera.

wood to have been guided by tests of ballistics of many types, which showed that in most instances while two claws might be provided, minor irregularities in film perforation and shrinkage generally resulted in sufficient error so that but one of the two claws actually moved the film. Therefore he decided a single claw movement would be fully as accurate, and much simpler to construct and maintain.

A single catch permits easy removal of the pressure pad and film channel for cleaning and inspection. Two positive, mechanical anti-buckle trips are provided, one governed by a relieved roller which bears, under spring tension, on the incoming film, the other on the outgoing film.

Two Focusing Systems

In addition to the conventional calibrated focusing scale, two methods of visually focusing the picture are provided. These follow the Mery system, which has been a patented feature of Eclair cameras for more than thirty years.

Visual focusing is at all times done through the lens, in its actual photographing position. The image may be focused either on a ground glass focusing screen or on the film itself, and viewed through a magnifying system from a convenient point at the rear of the camera.



A second is at the rear of the same side of the camera, beside the large knob that controls the focusing movement. The third is seen through a window at the rear of the camera.

The diaphragm scale is on the left side of the camera. Directly below it is the shutter control by which the shutter may be adjusted to any aperture from zero to one hundred eighty degrees. No automatic scale is supplied, but the shutter may be operated manually while the camera is in operation, either to make fades or to compensate exposures.

A convenience which should be appreciated by assistant cameramen is a button on the left-hand side of the camera, precisely in the focal plane, for attaching a tape measure. Since the end of a tape is likely to become worn or damaged with use, a calibration four inches from this knob is provided as a check-point for precise focusing.

Minimum Finder Parallax.

The finder is mounted on the right-hand side of the camera, rather than in what we have come to consider the conventional place on the opposite side. In this position, as the Eclair executives point out, a person using the finder in lining up a shot is out of the way of an assistant loading the camera, or of another member of the crew using the ground glass and focusing magnifier.

The finder lens is placed directly beside the photographing lens, inside the camera case and but a few inches from the lens. The image is reflected through the case to the finder on the outside. It is of course magnified and erect.

Due to this placement of the finder lens, horizontal parallax is minimized, and this is further corrected by a mechanism which adjusts the finder to compensate for parallax as the camera lens is focused.

Semi-automatic four-way finder matrices are provided to mark the finder to

Left, Right-hand side of Eclair camera, with motor cover in place. Focus control at rear of case, window focusing scale at front, footage counter and inchometer directly below finder. Lever above finder operates film path, and calibrated scale on finder adjusts finder matrix. Note enclosed, reversible housing over take-up belts.

Right, Close view of Eclair camera, open, in ground glass focusing position. Note separate magazines and contractible film case. The large dial at left adjusts stops for all lenses, directly below is shutter control. Film-shaping trimmer at right.

the angle of any lens being used. These matrices are operated by a single, calibrated control at the side of the finder.

Uses Any Motor

Any type of driving motor desired may be used with the new Eclair. The motor, with any necessary reduction gears, is fitted in a bayonet-type motor-mount, and covered with a sound-proofing case of the same material as the camera case.

The camera which has been brought to Hollywood is equipped with a standard ERPI alternating current interlock motor, a 50-cycle A-C motor, and a battery-powered motor for "wild shots" and location use.

Electrical circuits and connectors are built into the camera for using synchronous motors, interlock motors or "wild" motors. A master switch is provided for use with sound systems in which the camera crew starts the camera.

Individual Magazines

While the magazines are of the familiar, external type, they differ from conventional American practice in that the feed and take-up chambers are built individually rather than together. The magazines are interchangeable, having light traps in two positions, so that after a loaded magazine is emptied,

it can be turned ninety degrees and used for take-up.

The magazine spindles are fitted to accept the standard cores supplied in rolls of raw film. For take-up use, a special Eclair core is used. This core is slightly larger than the standard raw-stock core, and is of the contractible type for easy threading. A threading clip is provided at the side of the camera for quickly shaping the end of the film for convenient threading.

The take-up is belt driven, through an enclosed belt-housing. At the upper end of this housing an adjustment is provided for altering the take-up tension.

By reversing the take-up housing, swinging it from the take-up to the feed magazine, the camera may be operated in reverse whenever necessary.

Silent Operation

At the present writing, photographs and sound tests of the new Eclair camera are being conducted at one of Hollywood's major studios, pending which little can be said about the silence of this camera. This writer has, however, seen the camera demonstrated on several occasions, and while the accurate conditions at those times were not those of a test-stage the manufacturer's claim that the Eclair is the most silent camera thus far developed may have some basis of foundation.

The designer states, moreover, that the camera will not become noisy with use, as the gears are large, with precision-cut herringbone teeth, and metal and plastic gears are alternated.

Accessories

The weight of moving parts has been reduced to the safe minimum, though the camera appears considerably more robust than most European designs, and vibration should be correspondingly reduced. The usual flaking rubber matulation is used between the inner case and all external parts.

The Eclair camera is equipped with

(Continued on Page 455)

FILTERS CANNOT PERFORM MIRACLES

THE other day one of my friends came to me with a problem. "Something's wrong," he said. "I've always understood you should use a heavy filter to make clouds stand out against their background, but I tried it last week when those stormclouds were gathering, and it didn't work."

"I made two shots—one on panchromatic film with a deep red filter, the other on the same film but without the filter—and the clouds show up best in the unfiltered shot. What's wrong, anyhow?"

"Seeing the two scenes on the screen, the answer was easy to find. My friend had simply followed a broad rule about filtering clouds—without stopping to consider what he had to work with, and how his filters worked."

He had a fairly clear blue sky for a background. Against the sky were piles of huge stormclouds which ranged from leaden gray to black.

And here's what happened when he slipped that red filter over his lens. The filter, acting perfectly normally, darkened the blue sky almost to black. Against this dark background, ordinary white clouds will of course stand out like so many puffy cottons; but these clouds were dark!

With nothing to affect contrast, the dark clouds disappeared against the darkened sky like the proverbial black cat in a coal-mine. In the unfiltered shot, the sky was naturally rendered as a light gray, giving a perfect contrasting background for the dark thunderclouds. No wonder the unfiltered shot was better!

Clear Filters—And Still, Too

This is fairly typical of the way too many cinematists look at the problem of filtering. Next to the ever embarrassing "What stop should I use?" at amateur club meetings and on occasions when substituted cameramen encounter a professional, the most frequent question asked is "What filter should I use?"

It's about like telling a doctor "I don't feel well—what pill should I take?" The medico has to know where and in what way you feel ill; the photographer must take into consideration all of the varying conditions of your shot, such as subject, atmospheric conditions, lighting, location, type of film, and the like before he can give an honest, helpful answer.

First of all, let's make sure we know what a filter does. It is only a bit of colored glass or gelatin placed between your subject and the film. Being colored, it lets light of its own color through unhindered, and it absorbs light of its opposite, or complementary color.

If it is a red filter, for instance, it lets red light pass almost as if the filter weren't there and, depending on how deep a red it is, it stops most or all of the blue.

Since you are filtering out part of the exposure-making light, you have to increase the total exposure—either by giving a longer exposure, or opening up the lens to let more light get through—to give your film a full normal exposure.

Matter of Composition

Now if all the blue light is cut out, there will, even so, be practically no exposure given in the blue areas of the image. And since red goes through unhindered, and since you are giving more exposure too, the red areas will get an increased dose of exposure.

As a result, the blue areas will be dark and the red ones light. Other colors will be affected between these extremes, according to the amounts of red or blue their composition includes.

All of this presupposes a film that is sensitive to red light—that is, a panchromatic film. But suppose we have a film that is not sensitive to red, but only to blue. We've cut out all of the blue; we've put nothing useful in to replace it; so our film will get no exposure. If the film is, like Panchrome, sensitized

well through the yellows and oranges, and almost to red, we may, if we increase the exposure sufficiently, get a bit of exposure.

Here we have one filter which is useless on one type of film, partially useful on another, if a very large multiplying factor is used, and thoroughly useful on a third emulsion, with only a small exposure-increase necessary.

In the same way, if we use this same red filter on two different types of panchromatic film, one strongly sensitive to red, the other only moderately sensitive to that color, we must obviously increase the exposure more for the second film than for the first if we are to keep our exposures normal.

So we have a filter which on one type of film may have a factor of, say, 3, which on a less sensitive film may require a factor of, say, 6. So unless you specify what type of film is used, there is no sense in referring to this (or any other) filter as a "3x," "4x," or any other arbitrary rating.

Film Speed No Criterion

Film speed is no criterion. There are orthochromatic emulsions (not sensitive to red, but sensitive to blue, green, yellow and sometimes orange) which are faster than some panchromatic emulsions.

Yet for all their speed, if used with a filter which cuts out most of the light to which they are sensitive, they will demand more exposure than a much slower but more color sensitive film used with the same filter.

Since very little has been done to standardize filters of different manufacture, experience is about the best guide to factors and effects, unless one follows professional practice and uses either the Wratten filters, which are rigidly standardized, or some like the Scheide type which follows the same general standards and terminology.

Even for professional use, and certainly for most amateur purposes, the fewer filters one uses the better he is likely to be able to use them. Two or three will serve to most almost every possible need. If you use the color-blind or orthochromatic types of film, these should be a light, intermediate and dark yellow, to give lightly filtered, intermediate and heavily corrected effects.

If you use panchromatic materials you'll get the best results with a medium yellow filter (whatever its trade-name may be) for slight correction; an orange one (I prefer the Wratten 6 or the 21) for medium correction; and a medium red one for the heavy artillery. With those three you should be able to meet every normal situation—and you'll have less to carry and less to remember.

When Filter Can't Help

But there are times when no filter can possibly help. For instance, the dark cloud situation mentioned earlier: black over frequent, though, is a pale watery-blue sky, which looks more nearly white than blue.

(Continued on Page 427)

PLANNING VACATION SCRIPT

By JOHN T. CHEDESTER

Washington Society of Amateur Cinematographers

THERE is possibly no other phase of motion picture photography as important to the average amateur movie-maker as continuity in his travel films.

It is possible that about 99 per cent of his pictures are taken while he is on a trip. Nothing is probably so elusive to the average cameraman as trying to put some form of connective succession into his movies.

It is elusive. There is generally an unsuccessful attempt or two to get help from those whom the beginner believes ought to be in a position to help him. Nine times out of ten he is disappointed by the lack of interest in his problem and more or less just drifts along with the tide for awhile.

This of course leads to utter disappointment in time. Everyone is in such a hurry it is difficult to pin the fault of this state of affairs on any particular class of persons. Certainly the dealer does not have the time to show the novice how to make good movies. His friends, if he has any that make movies, will assist him, but even they are busy with untold numbers of problems of their own and cannot act as a kindergarten movie school.

Join a Good Club

The first thing that the new amateur should do is to associate himself with a movie club. It should be a good movie club, one in which at least some of the members are rather far advanced. The beginner can thereby secure the guidance and advice of the experts, and most of them get a kick out of helping the other fellow become a real artist; they like to see him grow and expand under their guidance.

As was said in the beginning, continuity is a tough customer to corner. It is sometimes like Pat's flea—you put your finger on it and it isn't there. But that of course depends a great deal on just what we intend to film.

There are but a few hard and fast

rules that can be given that will fit into all sorts of travel films. Try to look at the thing as though you were called upon at your club to tell the members about your trip to Alaska to whosoever or what have you.

You wouldn't begin such a talk by telling about your getting on the boat to take a trip down the McKenna River or your landing at Seattle or your connection with a telephone pole on the return trip to Oshkosh. If you ever attempted such a thing as this you would certainly be looked upon as a little hairy and would be promptly placed on the crackpot list where you would belong.

No, you would begin at the beginning. You would probably try to tell them what prompted you to take this trip, the late books you had read on the place you had visited, the travel talks and all the other things you had read and heard about it, the things you had to do to get ready to go. In other words, you would have a progressive story to tell, and you would try to do it the very best that you possibly could.

Progressive Sequences

The trip will have to be divided into a series of progressive. First of course comes the departure. This can be mounted; that is, a few floating shots of the preparation and the boarding of the transportation facility can be made, or it can be far more elaborate.

Harry Forbes Passes

HARRY W. FORBES, of the American Society of Cinematographers, passed away in Los Angeles on August 17th. He was fifty-one years old. He leaves a wife, Bertha Forbes, and a son. For some time he has been ill. Preceding that he was for several years in the independent field.

You may make several closeups of different books on the place visited, travel folders and posters, packing the baggage, boarding your car, or whatever conveyance you use. All of these preliminary successions must be short. Try to take shots here that suggest a great deal, such as the turning of train wheels, the blowing of a whistle, etc.

In order to save time and to help in a thousand other ways you ought to write up something before you start. This is something in which you will show a great deal of improvement as you go along.

You will be surprised to find how much better you will become at writing travel continuity once that you have broken the ice. First read everything of a late nature that you can get your hands on, think about the things you want to film, try to visualize the scenes you intend to take.

The old rule that everything must have a beginning, a middle and an end is as true today as it was two thousand years ago.

Scene 1, medium shot—the family reading a travel poster. Some one enters and says "Let's go—what do you say?" Scene 2, closeup—a folder reading Alaska; a snap of same.

It's just as simple as that. The greatest difficulty is in getting started at the thing, simply because we think we have no ability to do such things. All that is generally needed is for you to get started at it, and the first thing you know the sequence will be there, right on paper before you.

Before you start to write your scenario what do you scheme to do? What is your plot? From plot to script from script to film.

Join Down Titles

Everyone likes to listen to a good story. Pictures tell a far more powerful story than mere words, but they must be in sequence.

After the first division of our script there follows the second. The trip to the place we intend to visit. Shots along the way. Montage into the thing here quite a few signs. Put titles into your going trip. With these great helps carry along a notebook and jot down at the time titles that you think you'll need.

The names of places along the way will show the progress of your trip—so many miles to whosoit—this is the town of Salem—you are welcome—there are so many things you can film to show transition from one place to another.

Get some human interest into the thing, too. Anything to get a little comedy—that most intense and human thing—human interest. Don't leave your audience at the mouth of the McKenna.

The third division is the conclusion. Take a few of the most lovely views of the country that you can manage as concluding shots. The return shots should be short—even though we had a wonderful time it's mighty good to be home

(Continued on Page 419)



W. H. Robinson, Jr.

General Electric Advances W. H. Robinson in West

Effective as of August 1, W. H. Robinson, Jr., becomes assistant manager of G-E Lamp Department's South Pacific Division at Los Angeles. He succeeds L. R. Wilson, who was named manager of North Pacific Division at Portland, Ore.

For the past three years Mr. Robinson has been in charge of South Pacific's studio lighting and lamp sales in Hollywood. Upon graduation from the Massachusetts Institute of Technology, where he received his degrees of Bachelor and Master of Science, he joined the street lighting department of General Electric at Lynn, Mass., in 1925.

During the next ten years, Mr. Robinson was engaged in special lighting sales work for General Electric in Schenectady, New York, Chicago and Los Angeles. He was appointed to the post of division engineer of South Pacific in April, 1935, and supervisor of studio lighting and lamp sales in February, 1936.

Color Fashion News Reel Releasing One Each Month

An entirely new vehicle in the world of fashion news is the recently created American Fashion Newswreel, a color and sound presentation of American Color Newswreels, which will be released beginning Sept. 1, 1939, once a month for the nine months ending June 1, 1940.

Of particular interest is the fact that these "fashion in films" are designed as non-theatrical presentations and will be distributed exclusively to women audiences through the medium of women's clubs, community centers, colleges, groups and other women's organizations on a national scale throughout the United States and Canada.

A technique differing completely from

the usual Fashion films will be employed by the American Color Newswreels. Each picture will contain a series of sparkling full color "minute movies" of the latest creations in apparel, gadgets from the kitchen, hints for the hostess and up-to-the-minute suggestions for house and garden in town or country, enacted by color-screen tested models.

Each of the nine releases will be allowed to run only three months and will be withdrawn from circulation in order to guarantee the freshness of the fashion news.

Mogull's Fair News Ready

The latest issue of Mogull's World's

Fair News is off the press. Up to the minute with its listing of every innovation in the photographic and cinematic fields, it carries articles of interest and helpfulness to the expert as well as to the newcomer in still or movie photography. Over 1360 items at discount prices are listed.

Write to Mogulla, 68 West Forty-eighth street, New York, for a copy.

Erickson with Ampco

Harry E. Erickson, formerly with Expo Classroom Films Inc., is now associated with the Ampco Corporation in Chicago as director of educational sales division.



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Praise Does Come for Camerawork

(Continued from Page 412)

say that the lights, shadows and reflections in "Juarez" were in my opinion magnificent.

Probably the best way to describe my reaction to the photography in this picture is to say that the figures, particularly in the closeups, stood out in very bold relief from all around them.

Indeed, I am sure you must be very proud of your efforts in connection with "Juarez." Kind personal regards,

RALPH CLARK, Jr.

The Layman Speaks

Scarcely differing from the enthusiastic praise of these people who are in the industry, and in some degree, at least, personally acquainted with Cinematographer Gaudin and his work, is this letter from a perfect stranger, a member of the great, unseen audience which is supposed to notice nothing but the players. A lady in Minneapolis writes:

It has occurred to me that very possibly the letters written to those in the

moving picture industry are directed, in the main, to cast members of a production, and not to those technicians whose work contributes largely toward making the entire project a success. Because of this I wish to tell you how tremendously much my husband and I appreciated your superb photography in "Juarez."

Those of us who see few pictures by choice are grateful for such a production as this recent Warner release. It would be difficult to single out particular scenes that were made doubly brilliant by the photography, but I want to mention at least the incomparable shots immediately following the signing of the decree by Maximilian, the symbolic, breathtaking flight into darkness by Carlotta, the casual shots of the vultures at the time of Maximilian's entry into Mexico City, and Juarez' audience with the European diplomats (this might have been a satiric comment on Rembrandt's technique in handling such scenes).

I don't know if the scene on the balcony of the palace at Chapultepec Park was actually shot there or in Hollywood, but even the tile floor was familiar, and there can't be but one Popestapel.

Thanks again for your splendid work.

I really should tell you before I close that many of our friends were so deeply impressed by it that they stayed long enough to learn the name of the photographer, and to say: "Well, someone should write to Mr. Gaudin and tell him how fine his work is." For the first time I have acted upon such an impulse.

Most cordially yours,

MRS. LUCILE D. VERNERS

Encouragement Appreciated

Such recognition is naturally a source of inspiration to the cinematographer. As Gaudin replied to this letter, "We may receive Academy awards for our work, awards given within the industry, but it is far more gratifying to receive letters such as yours typifying an audience that goes to see the picture for the story that is told. I assure you that such appreciation will be encouraging for better work in the future."

That cinematographers can and do make their individual artistic styles evident even to the non-photographic public is evidenced by a remark in a letter from the British electrical engineer, P. C. Smethurst, to this writer, which excellently summarizes the entire situation. He wrote: "I think I know the members of the A.S.C. by name as well as anyone over here, and I could certainly identify the photography of some of them at sight. It is strange how individual people always tend to leave their mark in some little way even on technical points, isn't it?"

Mexican Picture Industry Now in Difficult Position

Lack of demand for its productions has brought about a crisis in Mexico's domestic film producing industry, according to a report to the Department of Commerce from Commercial Attache T. R. Lockett, Mexico City.

Estimates place the number of locally made pictures which have not been exhibited at around 85. Very few companies which have been able to release all their productions have continued producing, the report points out.

Because of the acute situation in the motion picture industry which affects the studios, producers, and distributors, a petition to the Government for assistance was recently made on behalf of all these branches.

The first apparent result of this action, the report points out, was a promise made by the federal district authorities to enact legislation which will force local exhibitors to set aside 12 complete weeks each year for the exhibition of Mexican-made pictures. The proposed legislation is said to include first-run theaters as well as the smaller houses.

In order to stimulate domestic production, local studios have promised to reduce charges as much as possible, but it is not believed the reduction will be sufficient to encourage increased output, the report said.

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Eclair Camera Makes Hollywood Bow

(Continued from Page 455)

all the conventional accessories, and a few not ordinarily found on standard equipment. A footage-counter of the Vooder type is provided and placed directly below the finder. An anemometer tachometer is also built into the camera, and should be a convenience in "wild" shots.

An unusually large square bellows is fitted in front of the camera, and slides on two demountable, chromium-plated rods. In addition a large globe, mounted on an arm supported by a ball-and-socket joint, is fitted above the camera.

Several types of holders for filters, diffusion-discs, and the like, are provided. One type screws directly into the lens, to hold small, round filters and diffusion discs directly in front of the lens. A second type snaps into place in front of the lens and is equipped with metal holders for several of the standard 2 by 3 inch glass-mounted filters, or gasses, and the like.

A film-notching punch is built into the camera. It is operated by a small lever outside the case, directly above the finder; the camera need not be opened for notching film between takes. A receptacle inside the camera catches the punchings. As has already been mentioned, a trimming clip on the side of the camera permits shaping the end of the film for convenient threading into the take-up core without the use of scissors.

Due to the light weight of the camera its loaded weight is approximately 140 pounds—it does not need an unusually heavy tripod. The tripod supplied with the camera is only slightly heavier than those used for silent cameras, and is fitted with a Y-shaped reinforcement between the legs.

It has a spring balanced pan-and-tilt head which requires no additional friction for smooth operation and which holds the camera in equilibrium without being locked. Independent locking-screws are provided for the pan and tilt movements, however.

A simple adaptor-ring permits adapting this head to any standard dolly or boom.

Altogether the new Cameraclear appears to be a most interesting step in camera design, and the results of the tests now being conducted under Hollywood conditions should be awaited with interest. According to the manufacturer, the new model has established an enviable record for durability in the other major production centers, even when, as in India and Egypt, it has been used far from recognized service facilities.

In Hollywood the Eclair organization has appointed the Fearless Camera Company, of 8572 Santa Monica Boulevard, as American sales and service representatives for the new camera.

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San Francisco Cinema Club

The regular monthly meeting of the Cinema Club of San Francisco was held Tuesday evening, August 15, in the Green Room, 1285 Market Street.

N. P. Dunn showed his 15mm. film entitled "California Trails." Club Member Robert McColister showed 250 feet of black and white film on the "Ice Follies."

Willoughby's Issues Catalogue

Willoughby's, of 110 West 122d street, New York, has published "Equipment and Accessories for Motion Pictures," and will be sent to any one requesting.

The book consists of 100 6 by 9 inch pages, and is illustrated.

Attendance in Tokyo

According to a report released by the Metropolitan Police Board, Tokyo, attendance at Tokyo's 126 motion picture houses totaled 71,394,864 persons during 1938. Total attendance at all amusement houses amounted to 86,598,627, an increase of 3,107,944 over the previous year.

Reports indicate that attendance at motion picture houses fell off by about 15 per cent in Tokyo during May, as compared with the previous month, but receipts still continued to be well above those for the corresponding period of last year.



Western Electric's corded directional microphone takes its base in Hollywood. Here a sound technician adjusts the wire coils to accommodate the voice of Max Starley Reed, while Production Chief Helen Tucker (extreme left) and Lorna L. Ryder (right), director of recording for Paramount, look on.

Photograph from Electrical Research Products, Inc.

New Seeman Titler Is Making Real Hit

The New Seemann Titler, one model fitting practically all cine cameras, is making a hit with movie-makers. Keeping abreast with the advance in amateur cine technique, Seemann's new offers a new titlemaker embodying many new features not to be found as a rule in other titlers of equal price.

The camera is raised or lowered, moved forward or backward until the camera lens is flush and centered on a celluloid disc marked with circles. The auxiliary lens is then substituted for the celluloid alignment guide and the camera is accurately centered.

Standard typewritten or hand-lettered title cards may be used. A large square celluloid guide fits over the card holder frame which clearly shows the line title area covered by the camera lens.

In addition to the regular title lens, an auxiliary lens of 20-inch focal length is supplied, which enables the user to photograph the large sized title cards with the many types of movable letters now on the market.

Two reflectors, with hand cranks, are attached to the upper and lower part of



the title holder frame. These enable the user to make the professional type scroll or rolling titles.

Practically all 16mm., 8mm. and 9.4 mm. camera will fit on the new Seemann titler. This is accomplished by the unique and flexible camera base and alignment guide.

The Model B is equipped with two reflectors, adjustable to practically any angle desired. Each light has a separate switch. The lighting equipment may be added to the Model A at a small additional cost.

Model A, without lights, is priced \$4.95. Model B, with lights, is \$9.95. The price includes two lenses, title cards and complete instructions.

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CARLE CINECAMERA

Filters Cannot Perform Miracles

(Continued from Page 422)

No color filter ever made will do any good there, for the action of a filter in darkening the sky is simply holding back the blue—and when you haven't any blue to hold back, you're simply out of luck.

On the other hand, a polarizing filter, like a polar screen, will often do the trick. The most common cause of those washed-out, colorless skies is a haze which comes from polarized light.

In such cases the polar screen can cut out the polarized rays, and give you the desired result far better than any filter. Even this isn't much use if you are shooting at an angle of less than 90 degrees from the sun. In such an instance, though, you'll find ordinary filter effects will decline sharply, too.

By this time, I can imagine a lot of folks are beginning to wonder if there's going to be anything sold about filters and Kodachrome. Obviously, ordinary color filters are useless for Kodachrome, since their color would change the resulting picture.

With of course the exception of the plainish filter which balances Type A Kodachrome to daylight, I have yet to find a filter which is of much real value with color. The Eastman experts make and recommend the colorless "haze filter" for extreme long shots, to absorb the invisible ultra-violet which will obscure the distance with a bluish veil.

About Polar Screens

Among both professionals and amateurs opinion is sharply divided on this filter. Some like it, and some don't. But to my mind, there is a far better device for the same purpose in the polar screen. This simply absorbs the scattered, polarized rays forming visual haze, without cutting out much of the blue and ultra-violet which give the slightly bluish cast we habitually associate with distance.

As a result, the distance is properly clear, the haze most surprisingly penetrated, without any apparent alteration of natural coloring.

If you doubt this, there is excellent proof available in the truly beautiful Kodachrome films made by William H. Yale, S.A.C., in Glacier National Park, which are now being exhibited all over the nation by the Great Northern Railway.

In the majority of the extreme long shots in his films—long shots in which the distant horizon may have been well over a hundred miles across mountains and valleys from the camera, Yale used his polar screen instead of any filter.

Other scenes, made at the Grand Coulee and Bonneville dam projects in the northwest, offer a more direct comparison, as some shots were made with the polar screen, and others, but a few minutes before or after, without it. In every instance the polarized scenes are far and away the best.

In addition, other scenes of a more normal nature are given spectacular "Maxfield Parrish" blue skies by the same polar screen. So I'd suggest every serious Kodachrome should get acquainted with the polar screen, for it will serve his color cinematography in the same way color filters enhance monochrome scenes.

Eastman Adds Four Books of Reference to Its Library

Worthy reference material for any photographer's library, four new Kodak data books at nominal prices are announced by the Eastman Company.

These books, now available through dealers, present a tremendous amount of specific, practical information in handy form. Designed for clearness, they will lead almost any photographer to a more accurate understanding of the materials he uses.

The books, in uniform 6 by 8 1/2-inch format, are: "Kodak Films," 56 pages, 15 cents. Discusses Kodak Roll Films, Film Packs, Ministars, and Sheet Films. Photographic characteristics of the

films, such as speed, contrast, and the like, are described, and the sensitometric terms are explained. Methods of determining film speeds and meter settings are also discussed.

"Kodachrome, Photography in Color," 52 pages, 25 cents. A comprehensive discussion of Kodachrome film, and data on its use for full-color filming. Exposure technique both in daylight and artificial light is treated, and advice on using a photoelectric exposure meter is included.

"Written Filters," 40 pages, 15 cents. This book deals with filters from both the practical and theoretical standpoints, and will appeal equally to the commercial photographer and the serious amateur. Diagrams and illustrations in black-and-white and color supplement the text and demonstrate the use of various filters and the Kodak Polar-Screen. Reference tables and selection of the proper filter for a given need.

"Eastman Photographic Papers," 48 pages, 15 cents. Offers full information on the various brands of Eastman photographic papers, and deals at length with their photographic and physical characteristics.

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Owners of Pathé and other European-made 8-mm. cameras, who for some years have found it difficult to obtain 8-mm. film in America, will be interested to learn that film of that size is now available through the Gevaert Company of America. Gevaert 8-mm. film, in several types, is stocked by the Gevaert Hollywood branch, 4813 Santa Monica Boulevard. This branch also processes the Gevaert 8.5 film, as well as that firm's 16-mm. and 35-mm. products.

Pictorialists Hold Annual

The Twenty-third Annual International Photographic Salon of the Camera Pictorialists of Los Angeles will be shown in Los Angeles Museum January, 1940, and M. H. De Young Museum, San Francisco, February, 1940. Closing date is December 1, 1939. Entry fee, \$1 or foreign equivalent. Address Larry Lewis, secretary, Los Angeles Museum, Exposition Park, Los Angeles.

Planning a Vacation Script

(Continued from Page 482)

again—some of that sort of thing, you know—of the family leaving the ear—some sort of shot to show that you have been away—the neighbors greeting you on your return.

The script does not have to be followed like the laws of the Medes and the Persians. You can add a bit here and there when you think the occasion demands—but you will have a story in story form, a story told in pictures, something you'll be proud of, and your friends will deservedly praise you for your artistry.

Nothing has ever been done good in this world without a plan and a little hard work. Don't work so hard at it that you take all the fun out of it, but don't be lazy either. A little work and a little study will repay you a million-fold.

Something to be proud of—a bit of
activity well done.

Around the World's Studios

(Continued from Page 466)

same methods familiar in Hollywood, and has standing sets, complete streets and the like, in great variety. They also have an open air "lot," having "free horizon" with a slope rising 180 feet high.

The system of production is practically the same as in a Hollywood studio, with the single exception that in addition to providing these extensive facilities for their own production, the Ufa executives make them available on rental to smaller production concerns.

French Stiefel Small

My next visit was to Fresno, which has many production concerns, none of which is big. Their stages and production system, with the exception of the lighting and technical equipment, are surprisingly similar to that of India.

The French stages are small, and there are no elaborate outdoor standing sets. The few studios I visited were built in the old, silent days, and were not used very much for many years, until the coming of the talkies. Then the natural impulse to produce pictures in the French language brought them to life again, with of course the physical changes necessary for making sound films.

Today, strange as it may seem, France

has one of its biggest competitors in Hollywood-made films. The dubbing of French dialog on American pictures has acted as a sort of brake on the French producing industry.

I have seen a few of these American pictures dubbed with French dialog, and it is so cleverly done that hardly any difference can be found between the picture originally produced and the one with dubbed-in dialog.

So, while French producers may at times make a remarkable film like "May-estee," there is little inclination to do so now that they can have satisfactory French dialog in films that have all the good points—technical and box-office—of American films. This, of course, is very much to Hollywood's advantage, but it makes it difficult today to say which way France's film industry will head.

England Static

It was the greatest puzzle to me to find out which of the English studies was working when I went to England. I have heard that England has altogether some 76 stages, but most of them today are in a non-active condition.

Some of these stages—especially those in the newer studios—are very big, and can in every way be compared to the stages in Hollywood.

The British studios have practically all of the best equipment required for modern production, and can in no way be found inferior to the Hollywood studios.

In fact, they have several things I have not seen even in Hollywood. In some of the studios they have a river, bridge, and even a full-scale railway track.

As is equally well known, several of the British studios have made considerable use of Technicolor, and all the equipment necessary for making pictures in color is available there.

At times Hollywood studios have sent over production units to use British studios, and I am sure that the Hollywood people who have worked on these pictures have not found the facilities any

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Formerly, I understand, laboratory work in England used to present a serious problem, but that is not the case today. In addition to several really good commercial laboratories, some of the larger British studios have their own laboratories, perfectly equipped and excellently staffed.

In fact, the English studios have everything needed to make good pictures—even to excellent technicians—in case they want to make them.

It is really very difficult to understand why these companies do not produce as many pictures as the Hollywood studios, for they have every facility, and can make them for the English-speaking audience—the widest market in the world.

Hollywood Impressions

It seems almost unnecessary, writing in a Hollywood magazine, to set down my impressions of Hollywood's studios. When I came to America, my impressions about the Hollywood studios were not so astonishing, as I had already expected to find them huge and complete.

The thing which I found beyond my expectation is the marvelous system by which the studios work, and the number of productions they turn out. The departmental work, as I have seen, makes the work so much easier and better, and at times more interesting as well.

Every department has its own job, and can be depended upon to perform it perfectly. Linked together by capable production management, this specialization inevitably makes pictures which for consistently high quality cannot be approached by any other method.

It is really amazing for a foreigner to see men who in any other country would be heading their own organizations, taking their places as heads of individual production units or departments with the activities of all supervised and coordinated by a genius such as a Zanuck or Thalberg.

In the photographic field, it seems almost redundant to repeat that nowhere but in Hollywood is such an amazing array of the world's greatest photographic talent to be found.

Special Process Impressions

When, as we do in India and in many other lands, one has followed the work of cinematographers like Bert Glennon, A.S.C., and the other members of the A.S.C. as one might that of some greatly admired teacher, it is inspiring to be able to watch these masters of the camera actually at their work, and to realize that something there is men who in almost any other producing center would be regarded as artists in their own right.

Glennon, it may be added, was di-

rector of photography on "Dances of the Mohawk."

I was tremendously impressed with the work of the special-process department. This is something quite unknown in my country, and I fear likely to remain so for some time.

Process-shots are probably an old story to Hollywood cinematographers, but to a foreign visitor the technical precision involved in making these shots and their artistic and economic value are a revelation.

People often ask me how I find the Hollywood studios in comparison to those I have visited in other lands. It is very easily summed up.

To me, there are today two major centers of production activity in the world: Hollywood and India. I say this not merely because India is my country and the seat of my activities, but because I believe the facts bear this out.

Hollywood turns out more and better pictures than any other center largely because of its system of working and its supreme organization.

Hollywood Makes for World

The centralization of such astounding technical and artistic resources follows as an inevitable corollary of this. Hollywood's volume production and marvelous organization is a fundamental necessity of the fact that Hollywood makes pictures not for any one or two countries, but for the world.

Next to Hollywood come the Indian studios. They produce many good pictures, and do it in spite of limited capital and resources, and in spite of the fact

that Indian pictures are necessarily so yet confined to a limited market.

In addition, India's studios are staffed almost entirely with native technicians and directors, almost all of them necessarily self-taught, and working with pitifully inadequate equipment. But—they make pictures, and make better ones all the time, as they learn more.

One of the first things any cinematographer learns is the old saying that you can't put shills on the screen. There is no practical benefit to be derived from telling what you are equipped to do—and not doing it, or from sitting passively dreaming of what you did yesterday, or might do tomorrow.

Hollywood and India do none of these things. They are active; they make pictures. In making pictures, they inevitably make mistakes; they turn out failures as well as successes.

But in any case, they both are always active, trying to make the best possible picture from the material at hand. They are the two vigorous, living entities in the world production map today.

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